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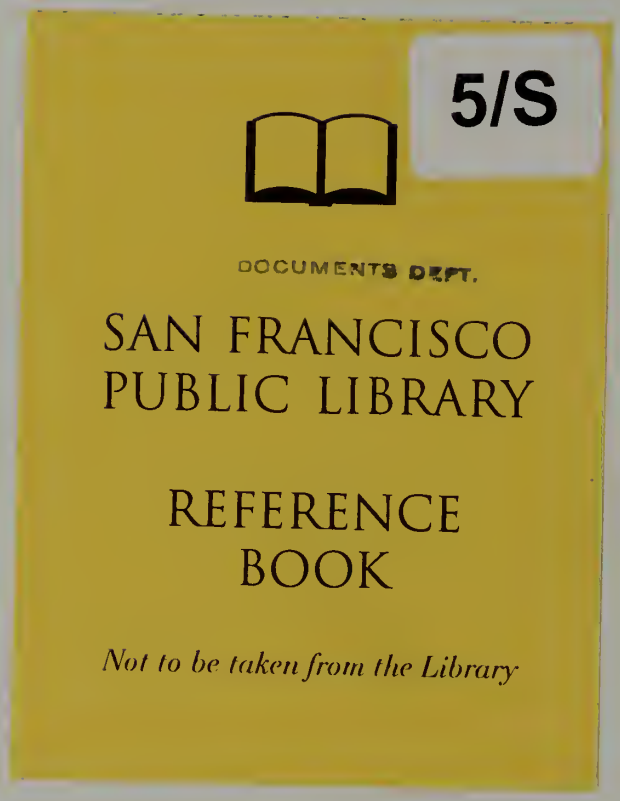

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MARKET STREET DESIGN STUDY III

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MARKET STREET DESIGN STUDY

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INTRODUCTION

This report summarizes the studies done under Stage III of the Market Street Design Study. It includes summaries of previous studies of Circulation and Service and Delivery; it contains the Physical Form, Historical Buildings and Sign Control studies in full; and it summarizes the major features of the Schematic Street Design Plan.

The study of Market Street has progressed through three stages. The first stage produced the general framework for the design of the street, based on planning, engineering, circulation and urban design studies. In the second stage, these studies were transformed into a series of adopted public policies to govern the design of the street, and a Federal grant was obtained to provide the new plazas at the Powell and Civic Center Stations. In this third stage, zoning studies and the Schematic Design for the street and plazas was completed. The steps will be to proceed into the final phases of preliminary and construction drawings. Then, with the commissioning of construction contracts, the final phase will be the building of the new street and plazas.

SECTION I

THE DESIGN FRAMEWORK

Market Street exists within a framework of its physical setting and its growth over time. Thus, the design for the street has evolved from a historical knowledge of the City's growth and development, from an understanding of its relationship to the region about it, and from an anticipation of the City's potential development. Together, these component parts constitute the design framework for the street.

Within this framework of present and future, Market Street is seen in more than one role: it is presently the circulation spine for the Downtown of a great city, and it is also the focus of the regional core serving the needs of the Bay Area. With the advent of rapid transit, the street's third role as a potential linear plaza will appear, the backbone of the future Downtown pedestrian system. One of the difficult tasks is the harmonizing of the conflicting demands of these various roles. The Schematic Design Plan, in meeting the Downtown circulation needs, is scaled to the pedestrian and anticipates the requirements of an immensely strengthened regional core.

HISTORICAL SETTING

In 1847, Jasper O'Farrell, in laying out the new town of San Francisco, drew a broad diagonal slash down the trough from Twin Peaks to the Bay, creating two separate street patterns. He had in mind a great Boulevard, and this vision and its potential have remained to this day.

Market Street -- The Center of Business and the City: 1847-1900.

Developing on the periphery of the town center about Portsmouth Square Market Street soon became surrounded with residential and business establishments. It became the central thoroughfare of the City, linking the waterfront with Mission Dolores. In the 1870's, Market Street's width of 120 feet, considered extravagant when first planned, was recognized as a handsome setting for civic processions, marching societies, and the Chinese celebrations which were already a part of the City's unique character. The City Hall was moved to Yerba Buena Park on Market Street, and with the construction of the Ferry Building in 1875, the Street became the main terminus and funnel of the trans-Bay traffic. By the turn of the century, the cable car, the ferry boat, and the advent of electricity and telephone had combined with the transportation lines to make San Francisco the center of the growing region. Market Street was the major artery of the bustling City.

Market Street -- The Great Street: 1900-1930.

With the growth and expansion of San Francisco, Daniel Burnham was invited in 1904 to design a new and finer San Francisco. In the resulting plan, a great civic core of public buildings was proposed at Van Ness Avenue and Market Street. Market Street would have become a major spoke of a great wheel of boulevards radiating from this central location.

The earthquake and fire of 1906 destroyed most of Downtown San Francisco, and the Burnham Plan was set aside for more immediate reconstruction

needs. The rebuilding of the City brought about a shifting in the location of Downtown houses, businesses, and retail trade. Market Street prospered as new shops and stores moved onto the Street from the Ferry Building to the Civic Center.

During the ensuing twenty-five years, Downtown San Francisco was covered with a transit network, and Market Street was its terminus or crossing point. Real estate values continued to rise, sometimes spectacularly, as San Francisco became more and more the center of the Bay Area.

Market Street in Decline: 1930-1960.

Soon, however, with the proliferation of the automobile, public transit began to diminish in number of fares and services, and by 1934, vehicular congestion became common. A subway system was proposed, but was defeated in a 1938 bond election. The Bay Bridge opened and the tempo of ferry boats crossing the Bay lessened and finally stilled. Major new buildings began to shift away from Market Street and up Montgomery Street towards Nob Hill. Thus, the great volume of people that were supporting Market Street activity diminished and the Street began its physical decline. World War II temporarily reversed this trend, but soon afterward, the previous decline continued.

Public Policy Reverses the Trend: 1960-Today.

Public policy during the 1950's began to exert its influence on the Street. The impact of the Golden Gateway, improved freeway access, increased

is a major work place for the regional ring of suburban residential communities.

The construction of regional rapid transit in San Francisco will increase accessibility to the City and reinforce the activities serving the region, thus greatly intensifying the Downtown core. Changes are already clearly evident in land values, retail intensity, and building construction, and these changes will focus along Market Street.

The impact of the rapid transit system upon the fabric of the City will be strongest at those points where the subway passengers emerge onto street level. At four of these points, new plazas will be built to function as new "gateways" to the City. At the Montgomery Street Station, the Crocker Plaza will provide access to the financial and administrative district for daily commuters and visitors. At the Powell Station, the plaza will attract to the retail and the amusement/hotel areas the daytime shopper and the evening entertainment seeker. At the Civic Center Station, the plaza will become the gateway for office workers and Civic Center visitors. At the Davis Street Station, future plazas will serve the lower Market administration area, the Golden Gateway, and the Ferry Park.

URBAN SETTING

Buildings, streets, and open spaces provide the background for human

activities and movements in a city. The quality of this physical environment and the intensity of these activities determine the vitality of a city's life. Together they create the urban setting for the design of the Street.

Activities

Downtown San Francisco is a compact core with many areas of activities. The Financial/Administrative area, extending from Market Street along California and Montgomery Streets, visibly dominates the other areas with its tall office buildings. It is an area identified by the daily flow along its streets of business and professional people. The Retail/Commercial area with its department stores and speciality shops focuses on Market and Stockton Streets, and its sidewalks are crowded daily with shoppers. The Hotel/Entertainment area with its heavy residential usage touches Market Street between Powell and Civic Center Stations. Although in transition, with its hotel and movie houses in decline, this section retains a nighttime vibrancy attracting people from throughout the Bay Area. The Civic Center area, dominated by the monumental City Hall, is similar to the financial area in its daily flow of office workers. At night, the Civic Auditorium and the Opera House draw afresh new crowds.

Market Street connects these functional areas. Together with its concentrated activities, the Street is the circulation axis for people in both the morning and evening hours. As the Street passes through

each area it also takes on specialized characteristics. Market Street pulsates with an immense variety of people, from the Downtown worker to the shopper, from the knots of servicemen and theatergoers to the residents of the new Fox Plaza. Rapid transit will reinforce these areas with new growth and development extending out in spinelike patterns from the stations and plazas. Potentially, the most dramatic change is likely to occur south of Market Street where the new high-rise buildings along Mission Street indicate the future patterns of the Yerba Buena Center and other developments.

Movement Systems

Market Street will become a three-level circulation spine. Separate levels for rapid transit trains and City streetcars will lie below the Street, while buses, automobiles, and pedestrians will traverse its surface. Along the Street these various modes of circulation will be interconnected and linked with the regional and City systems of commuter and local buses, taxis, and cable cars.

Traditionally, a major thoroughfare in the eastwest direction, the Street has long acted as a barrier to traffic crossing from north and south. Conflicting, offset north and south street patterns meeting at Market Street prevent direct interconnection. The extensions being constructed across Market Street at Fifth and Seventh Streets will aid in resolving this problem.

and the Bay, Civic Center and City Hall, Twin Peaks and the hills beyond. This space has been solidly defined in the past by structures, such as the Phelan and Flood buildings and the Emporium, which adhered closely to the property lines along the Street. However, the new high towers on the northern side are angled to Market Street, increasing the dissimilarity between the two sides of the Street. The difficulty of building on the triangular blocks has allowed provision of more open space at street level, but an attendant weakening of the Street's facade-line definition has occurred.

SECTION 2

THE DESIGN PLAN

Design Principles

The creation of a great thoroughfare for San Francisco is the basic design objective. Within this broad goal the following objectives are paramount:

1. MARKET STREET SHOULD BECOME A GREAT STREET. Market Street has many of the qualities of a great street which must now be strengthened as well as new ones added. The Street must have visual strength and clarity and it must connect the great plazas of the City in order to accomplish this goal, minor plazas, and open spaces along its length for activities and points of focus are required.

2. MARKET STREET SHOULD UNIFY THE CITY CORE. As it traverses the major functional areas of the City, Market Street must link them visually and functionally, providing vistas, focal points, and activities. It must also unify the north and south sides of the Street into one overall pedestrian network - a great linear plaza.

3. MARKET STREET SHOULD FUNCTION AS THE CIRCULATION ARTERY OF THE CITY. Market Street must move transit vehicles, automobiles, and pedestrians, both smoothly and efficiently. Terminals and connection points must gracefully expedite the flow of people and

provide for their interchange. The sidewalks must accommodate this flow and integrate the pedestrian network into the fabric of the City. Open spaces must be provided along the street at the major connection points.

4. MARKET STREET SHOULD BE INTENSE, LIVELY, AND HUMANLY SCALED. Market Street must provide for more than just the flow of people and vehicles. It must stimulate human participation, providing things for people to do, places to eat, works of art to admire, place for people to walk, shop, or rest. The Street must be a dynamic place, attractive to and used by people as part of their daily lives.

The Plan

Lined with trees and wide sidewalks, Market Street is designed to be the great Street of a great City. In one sense, it is a linear plaza, punctuated periodically by smaller adjacent plazas. In another sense, it is a formal, ceremonial way, connecting the major public plazas of the Ferry Building and the Civic Center.

Functionally, the design reflects the varying circulation roles of the Street. Downtown it is a pedestrian-transit oriented Street with a four-lane roadway and 35-foot sidewalks. Periodic right-turn lanes and service bays narrow the sidewalk width to 26 feet. From Civic Center to Van Ness Avenue, it changes to six lanes of roadway

and 26-foot sidewalks. Beyond Van Ness, the Street becomes a major throughfare and its roadway widens to eight lanes. The redesigned Market Street has been engineered to increase the traffic flow within the Downtown area to 115 per cent of its present volume. Service bays have been located and sized through a survey of the service needs of properties along the street; there is a minimum of one bay to every block.

The major element unifying and strengthening Market Street is the use of trees which are planted consistently for the length of the Street in either single or double rows. In the Financial/Administrative area, where new buildings are creating large open spaces, the trees are in double rows to strengthen the sense of the Street's definition. In the central Retail area, which lacks comparable open space and where show-window visibility with unobstructed pedestrian space is desirable, the trees are in single rows.

From the Ferry Park to Van Ness Avenue, the pedestrian areas are defined by special sidewalk paving. When extended through the crosswalks, this pattern achieves the goal of unifying the core and creating the linear plaza. Within the sidewalk area, clusters of street furniture occur in a steady rhythm, lending a distinct character to the Street.

The existing Path of Gold lamp standards are refurbished and relamped to give an amber glow equivalent to four times the present light. For attractiveness and pedestrian safety, each treeguard has lighting affixed to it. Additional lighting supplied in the special seating areas, the bus stops, and the subway station entrances. Within the overall rhythm of the trees and sidewalk paving, the detail of the sidewalk areas reflects the variety of individual activities occurring within each functional area.

Pedestrian Environment

The pedestrian environment is defined by a rich pattern of warmly colored unit paving blocks, such as brick. Functionally, the sidewalk area is divided into three distinct zones that are continuous for the length of the Street. A zone adjacent to the store fronts is devoted to pedestrian movement and window shopping. An adjoining zone between the trees contains the service street equipment and furniture, while a zone adjacent to the curb is devoted to pedestrian flow, bus loading, service bays, and right-turn lanes.

The design and use of the sidewalk service zone change as it passes through the various functional areas, thus attaining the goals of variety and stimulation of human activities. In the Financial/ Administrative area, between the double rows of trees, the design

reflects the pace of the office worker. The emphasis is upon the clustering of benches, drinking fountains, kiosks, planting and sculpture. In the Retail area, parallel to the single row of trees, the design provides for large flows of people. Here the emphasis is upon a more open grouping of street furniture and equipment which includes the additional items of movable planting and sidewalk display cases.

The environmental focus of each Street section is found in the plaza areas wherein the old and the new combine to give Market Street its unique appearance. Here Lotta's Fountain, the Mechanics' Monument, the Pioneers' Memorial, and the Path of Gold lamp standards provide the historical tie to the Street's robust past. Here also are the new structures and station entrances, designed with contemporary materials and techniques to reflect the present. Thus, in response to the goals of variety and historical continuity, the old and the new are blended to be the plaza design for the future.

Powell Station Plaza

Powell Station Plaza is the entranceway to the Downtown retail shopping area attracting people from the entire Bay Area. Located between the major plazas at the Ferry Building and the Civic Center, it provides a public space to focus the intense activity clustering around this major rapid-transit station.

Designed to function smoothly and efficiently, the Plaza disperses the large flow of people arriving and departing daily from the Muni and BARTD subway levels. Arriving first at an intermediate sunken level of the Plaza, one may ascend directly to street level up the large terraced steps or on the escalators. Or, a visitor may continue westward through a shop-lined concourse to a smaller portion of the Plaza with a second terrace of steps and set of escalators. At street level, the Plaza is mostly open and bordered with trees, benches, flagpoles and vending kiosks. Radiating from the Plaza, Powell Street for the length of its first block is a pedestrian mall, giving emphasis to the cable car and its turntable.

Day and night, Powell Station Plaza will be lively with activity. The amphitheater-style steps can accommodate seasonal events such as fashion shows, concerts, and fund-raising affairs. Colorful planters will display seasonal flowers and plants, while the shops along the concourse will add not only the convenience of facilities but also brightness and color.

The Plaza should provide the stimulus for new buildings in the surrounding area, hopefully incorporating arcades and open spaces at ground level. Complementing the new buildings bordering the Plaza, are the historic and architecturally significant Bank of America and Flood buildings. They should be retained to provide a sense of physical definition to the Plaza and an architectural tie to such other significant near-by structures along Market Street as The Emporium and Humboldt Bank buildings.

Civic Center Station Plaza

Situated at the junction of Market and Fulton Streets, the Civic Center Station Plaza visually links the City Hall with Market Street. From the west, the Plaza is the symbolic gateway to the Downtown core; to the person arriving by undergraound transit, it is the pedestrian entranceway to the Civic Center area.

In functionally integrating the flow of people from the subway levels to the streets, the Plaza is scaled to accommodate the daily crowds of office workers as well as periodic demands of civic ceremonies, such as parades. On the south side, the sunken area provides for a direct connection to the Greyhound Bus Depot. Dominating the central space and creating the focus for the activities of the Plaza is a major civic sculpture. Its strategic location will provide the visual direction to the pedestrian

flow from Market Street to the City Hall. The construction of the Plaza will stimulate new buildings in its immediate vicinity. It is recommended that they contain ground-floor arcades, sidewalk cafes, and other colorful pedestrian-serving activities to enhance life and vitality for the Plaza.

Street Furniture

The design objective for street equipment, such as lamp standards, traffic signals, and fire hydrants, is to remove their discordant, cluttered aspects and to discipline their appearance. This change is essential to the functioning of a great Street. For the majority of the equipment such as the fire and police call boxes, traffic signals, street signs, and telephones, the design objective is achieved through a common modular pole on which the unit is mounted. Other items recommended to be retained without change are the fire hydrants, which have a design unique to San Francisco, and the mail boxes, which are part of the national mail system.

The elements which provide the amenities of sidewalk life are the street furnishings, including benches, drinking fountains, and planters. The basic design objective for this furniture is to create a consistent form that unifies the individual pieces. Thus, materials, details, and construction techniques are similar for each piece, creating a harmonious, yet varied, family of forms.

In the design of such special items as sales kiosks, flower stands, and bus shelters, basic forms have been elaborated upon and expanded to match the new requirements.

Bus shelters, for example, utilize typical mounting poles and materials of cast bronze and anodized aluminum in combination with special lighting, colored illuminated sign panels, and a glass roof. Flagpoles are large in scale to match the Path of Gold lamp standards, and their bases flare dramatically, emphasing their support at the sidewalk.

SECTION III

PHYSICAL FORM

INTRODUCTION

The physical form of Market Street cannot be extracted and considered independently from the overall form of the downtown except perhaps for certain detail form relationships of buildings to the street. In the course of developing form recommendations for Market Street it has therefore been essential we consider broad form policy for the downtown as a whole. To do this completely and definitively was considerably beyond the scope of this project consequently our work has been limited in this regard to sketching in overall form concepts sufficiently to provide a design framework for Market Street.

It will be clear from the contents of this report and our review of the San Francisco Downtown Zoning Study that our urban form recommendations differ significantly from the form inherent in the proposed zoning recommendations. It is the conclusion of our studies that much more definitive controls are required if meaningful form development in harmony with those valued qualities of present day San Francisco are to be obtained.

A detailed comprehensive physical form study for the downtown and adjacent areas is needed to provide the basis for a definitive urban form plan. Without the benifit of such a study legalizing the proposals of the Zoning Study in their present form would leave the door open during a very crucial period. A few developments of the wrong kind in the right place could effectively negate certain urban form potentials still open

to the City.

In the interum period to protect against this eventualily it is recommended that the City Planning Commission utilize it's Decretionary Review powers quided by a set of physical form criteria. The policy and criteria in this report is suggested as the basis for the development of the necessary quidelines.

RECOMMENDATIONS

1. The Physical Form Policy and Criteria for Market Street in this report be expended to include all critical growth areas within and adjacent to the downtown as a temporary basis for evaluating development proposals.
2. The zoning regulations proposed in the Downtown Zoning Study should not be acted upon until completion of a comprehensive physical form study. In the interium period the Discretionary Review process should be utilized, guided by the interum expanded physical form policy and cirteria.
3. A Comprehensive Definitive Physical Form study for downtown San Francisco and related areas should be initiated immediately.
4. The Downtown Zoning Study Report should be revised to implement the conclusions of the Phycisal Form Study.

I. The Form of Downtown and Market Street

The cross-section of Market Street is in essense a cross-section of the physical form of downtown. Beginning at the Embarcadero building heights increase dramatically climaxing at Montgomery Street in the heart of the Administration/ Finance office district. From there building heights drop rapidly off, seldom piercing the above 140 feet, until past Ninth Street where the Fox Plaza Center Tower stands as a forerunner of future development in the area. West of Van Ness the height of building again drops to a low, fairly continuous level rarely exceeding six floors in height.

Just as the heights of building change with each functional district so does the relation of the building to the street and site change. In the Office Core area the four most recent development have all kept the building back from the street covering only a portion of the site to create plazas and gardens for public enjoyment and the prestige accompaning such corporate generosity.

The Retail District in contrast fills every inch of developable land, striving to maintain a continuity of store fronts and commercial activity. In the outer Market Street area between Seventh and Twelvth Streets parking lots interspersed between tall buildings give evidence to the activities located here. West of Twelvth Street filling stations, super markets, and drive in restaurants are the roadside signals of a more extensive kind of primarily residential development.

Of the many possible form concepts considered during the course of the study three basic alternature emerged: (1) Market Street as the 'ridge pole' of the downtown form (2) Market Street linking a series of peaks of development centering on the

three regional transit stations; and (3) emphasizing and strengthening the present form. Of these the 'ridge pole' concept was found most unsatisfactory in that it did not account for the functional differentiation of building forms, implied equal access and a balancing of development on both sides of Market Street.

The second concept, envisioning a series of peaks was the approach implicite in the proposals of the Downtown Zoning Study Report. While this did account for accessibility patterns the closeness of the stations to each other precluded any meaningful form differentiation. The intrusion of office towers into the heart of the retail district was considered as possibly having a detrimental effect on retail continuity.

The third alternative, that of emphasizing and strengthening the present form of the street was considered the best approach yielding the greatest spatial variety, the most clearly defined form, and the form most compatible with the functional characteristics of each special activity area.

In general the concept would encourage high tower forms in the Office District with the focal point north of Market Street; low massive development in the Retail and Hotel/Entertainment Districts, with some smaller tower forms occuring; extension of the low block forms characteristic of the Civic Center bracketing the the Civic Center Station Plaza; and again, an eruption of tower forms, although lower and more widely spaced than the office core, west of the Civic Center. Only by retaining the low blocky but very intensive development characteristic of the retail district could the form of the office tower complex--the man-made 'fourth hill' be clearly defined.

II. The Relation of Building to the Street

The Crown Zellerbach Building was the first tower office structure to be built as a free standing element sited in its own plaza or park-like setting in downtown San Francisco. The second office tower set back from the street property line with a related plaza was the Standard Oil Building opposite the Zellerbach Plaza on Market Street. Two more towers with set backs and plazas are presently under construction: The Crocker Bank Building and the Mutual Benefit Building. When these are completed there will only be a short block at most between plazas on the north side of Market Street in the Finance/Administration area.

The principle of the tower work space surrounded by plazas for the rest and recreation of the personnel working at high densities in these buildings is appropriate to the needs of the area. The lunch time crowds on a typical day at Zellerbach or Standard Oil Plazas is ample evidence of their usefulness and merit. The image of tall shafts rising clearly and independently from their own landscaped setting--if fully developed--can be as rich as the creation of the dramatic man-made canyons we are familiar with.

It is the conclusion of our study that the opening up of the street space in the Finance/Administrative sector of Market Street has proceeded so far that to attempt to turn back toward a more strongly enclosed street space would have little effect. The strongest development character will result from the encouragement and extension of the principle embodied in the Zellerbach, Standard Oil, Crocker Bank and Mutual Benefit developments with certain restraints applied to maintain the longitudinal form. While a tightly defined street form can no longer be maintained in immediate areas in the Finance/Administration district the

definition of the street space can be retained longitudinally as long as major buildings touch a corner or face to the street property line at frequent intervals. To achieve this it should be required that at least one major structure touch the street property line in small blocks and in larger blocks at least two structures touch within a specified distance from the corners of the block.

Market Street is most strongly defined by structures between Seventh and Third Streets in the Retail and Hotel/Entertainment Districts.. The only open area, the parking lot on the south-east corner of Fourth and Market Streets is now in the process of being filled in by a major new commercial building. In this area the continuity of retail frontage is vital to the functioning of the area. Plazas typical of prestige office buildings, however pleasant, would be a detrimental interuption possibly forming a subtle barrier to the shopper, producing a shopping dead spot. In this zone the design goal of maintaining the strong definition of the street coincides with the functional needs of the area. It is therefore recommended that no front set backs be permitted and that side set backs be allowed only where a mid-block pedestrian cooridor is proposed in this zone. Two exceptions to this requirement are the entrance to Yerba Buena and Powell Plaza. The plans for Verba Buena propose the creation of a major pedestrian corridor leading to a sports/convention arena, a small plaza announcing the project would provide appropriate identification to the Market Street portal. -Powell Plaza will be a major focal point of pedestrian activity and will be the entry point of most visitors arriving by transit. A small set back on the southern side will provide needed pedestrian space and will create a greater sense of opening out of the plaza.

III. Recommended General Physical Form Policy for Downtown and Market Street

1. To maintian, enhance and encourage development of a variety of spatial experiences along Market Street expressive of the functional area and to strengthen and enhance the differing developmental characterics of each functional area:

   a. massing of tall free standing towers with open space between to create a hill form in the Office District.

   b. low massive buildings and intensive site coverage with open space provided on roof decks in the Retail District.

   c. extension of Civic Center character of development around the Civic Center Station Plaza.

   d. a secondary more openly spaced cluster of smaller towers west of Civic Center Station for the emerging auto orientated office/residential complex.

   e. terraced residential development along the transportation spine of outer Market Street.

2. To provide amenities appropriate to the needs and character of each area along Market Street.

3. To protect the clarity of the form of the natural hills from being obscured and disfigured by man-made forms and to preserve the maximum views from both natural and man-made "hills."

4. To preserve and enhance the contrasting development patterns resulting from the differing street grids on the north and south sides of Market Street. Sturctures should reflect the orientation of their respective street grids.

5. The relation of buildings to the street should be in harmony with the functional characteristics of each district. Front or side set backs

should be provided only where they will not interupt the continuity of street activity and where the resultant open space serve a real need.

6. To make pedestrian circulation more comfortable, pleasant and convenient through sheltering arcades, mid-block pedestrian break-throughs, inter-building connections, and pedestrian under or over-passes.

IV. Physical Form Criteria

A. Office District (Finance/Administration)

Extent: From the Embarcadero to approximately Third Street.

1. The major massing of building forms should occur in the office core area. The over all form should be roughly that of a cone or pyramid with its apex north of Market Street in the vicinity of Sansome and Pine Streets.

2. The massing of buildings in the office core should visually read as a distinct and separate man-made "fourth hill" and should not encroach upon the form of the natural hills. The further construction of tall buildings on the base or foot of Nob Hill west of Kearney should be prevented.

3. There should be a smooth transition between the clustered towers of the office core and surrounding low urban development, in particular to adjacent low lying historic areas such as Jackson Square and China Town. Surrounding the center of the office core which would have no height limit, a transition zone should be established requiring a gradual decrease in building height to that of the surrounding areas.

a. Along Market Street two transition zones are recommended: (1) on the east side of the office core an inclined height limitation plane starting at 140 feet above street grade at Spear Street would slope upward 30 degrees to 700 feet. (ending approximately above Fremont Street). The purpose of this plane is to permit the maximum bay view and give a definable 'hill' shape to this side of the Office District. (2) The easterly transition zone would start at 140 feet elevation above street grade at Fourth Street and slope upward at 30 degrees in an easterly direction

to a height of 700 feet (ending approximately above Anne Street.) The purpose of this zone is to insure a smooth transition from the high towers to the lower retail core and also to preserve maximum view.

These recommended transition zones apply only to buildings fronting on Market Street and should be extended to encompass the entire office core area as soon as additional analysis beyond the scope of this study can be completed.

4. The principle of the tower work space surrounded by players and gardens for rest and recreation of the personnel working at high densities within the towers is appropriate to the area and should be encouraged. The guiding image for development is tall building shafts rising independently from their own landscaped setting. Front and side set-backs for the creation of plazas, rest areas and landscaped gardens are permitted from Third Street to the Embarcadero.

5. To insure the continued definition of the street form when viewed longitudially it is necessary that a major building face or corner touch the Market Street property line at intervals no greater than 300 feet. A major building is defined for this purpose as a building of not less than 10 floors. Further, it is desirable that the extent of front set-back between two minor buildings (1 to 9 floors) or a major and a minor building not exceeding 150 feet. These dimensions apply across intersections as well as within blocks.

6. To maintain the contrast between the north and south sides of Market Street it should be required that building facades (a) in the triangular blocks north of Market Street be parallel to either the north and west block fronts or Market Street and a plane perpendicular to Market Street.

If the site is a gore corner location the building focades may be parallel to Market Street and the street forming the gore corner with Market Street; the third facade may be parallel with either the block front opposite the gore corner or a plane perpendicular to Market Street. (b) In rectangular blocks north and south of Market Street building facades should be parallel to the respective block fronts.

7. Pedestrian arcades paralleling and extending the effective width of Market Street sidewalk should be provided in all new construction along Market Street and encouraged to be developed in existing structures where appropriate. The provision of arcades is desirable for pedestrian shelter, the visual definition of the street, to provide needed space around subway station entrances, and to give Market Street a special indentifying character.

Arcades should conform to the design criteria recommended in this report.

B. Retail and Hotel/Entertainment Districts

Extent: Third Street to Seventh Street

1. The low massive development without front or side setbacks characteristic of the Retail and Hotel/Entertainment Districts along Market Street should be maintained. To this end and to insure adequate penetration of sunlight and air to the street new construction along Market Street should be limited to a maximum height of 140 feet at the Market Street Property Line. Higher construction may occur back from the opposite side of the street from the public right-of-way and does not exceed 20 floors of 240 feet in height. This height limit is considered appropriate to anticipated development needs in this area and is in keeping with the form concept of the retail area as a relatively low area flanked to the east and west by a major and secondary grouping of office towers. Buildings or towers off Market Street exceeding 140 feet in height should conform to the following formula:

Height of Building or Tower (in feet)	Area of Building or Tower Above 140 foot elevation
141 - 165	75% of site area
166 - 190	50% of site area
191 - 240 maximum	25% of site area

It is not the intent of these restrictions to allow a stepped pattern above the 140 foot level. Thus, for example, a building 190 feet high cannot have a floor between 141 and 165 elevation equal to 75% of the site area. For a 190 foot tall building no floor above the 140 foot level could be larger than 50% of the site area.

The purpose of these recommended controls is to encourage low massive development yet to allow for moderate sized towers to occur where appropriate.

2. The maintenance of continuity of retail frontage is essential for vital retail activity. Interruptions such as building entrance plazas typical of prestige office buildings, however pleasant, would be detrimental, forming real or subtile obstacles to shopper movement. The development of plazas and front side setbacks should in this district only be permitted at points of great significance and intensive pedestrian activity. Ground floor street frontages should be denoted to retail and consumer service usages.

The following restrictions are proposed to be applied along Market Street to insure retail continuity:

a. No building setbacks from the Market Street property line are to be permitted except (1) a fifteen foot setback on the south side of Powell Plaza would be permitted to provide needed sidewalk space and create a greater sense of opening out of the Plaza. (2) A shallow entrance plaza to the important Yerba Buena pedestrian corridor provided the plaza is not more than 50 feet deep with a continuous building facade paralled to Market Street forming the south side of the plaza. The pedestrian corridor should pass under this building via a broad underpass providing easy viewing into the interior courtyard.

b. No side setbacks below 25 feet height above street grade except for openings for mid-block pedestrian ways connecting through the block or to interior block pedestrian systems.

c. No more than 1/3 or 30 feet of building frontage (whichever is less) should be devoted to entrances to other types of uses. A minimum of 1/2 street frontage should be devoted to display windows and entrances to retail and consumer service areas.

3. Pedestrian shopping arcades paralleling and extending the effective sidewalk width would both make Market Street an all weather shopping street and provide the space needed by peak seasonal crowds. New structures on Market Street east of Mason Street should be required to incorporate arcades on the Market Street frontage and the development of arcades in existing structures should be encouraged where appropriate to obtain continuity.

Arcades should conform to the design criteria recommended in this report.

4. Public rooftop plazas or recreational decks above 25 feet elevation should be encouraged in the Retail District to provide the needed open space and to make the Retail District a more attractive destination for visitors. The interconnection of two or more buildings and/or stores to a common rooftop recreational deck should be especially encouraged to facilitate shopper movement between establishments.

5. Pedestrian connections between two or more buildings housing retail or consumer service used on the ground floor or upper level are to be encouraged. Pedestrian bridge across streets - except across Market Street or at locations where pedestrian bridge would block important views - may be utilized for this purpose.

6. Mid-block pedestrian breakthroughs connecting to important faulities such as parking garages, transportation terminals, and public buildings should be required where a public pedestrian way can reasonably be accomodated with the proposed development.

7. Entertainment activities, excepting major theaters, should be encouraged to relocate off Market Street to a system of interior block pedestrian corridors between Fifth and Seventh Streets. Development plans for this area should be prepared to facilitate the creation of a vital sucessful off-Market entertainment complex.

C. Civic Center Station Plaza

Extent: Seventh to Eighth Streets

1. The buildings surrounding and framing the Civic Center Station Plaza should maintain the general character and scale of the main buildings defining Civic Center Plaza and Fulton Mall. Where appropriate existing building lines and/or cornice lines should be extended and incorporated into new construction. On the north side the height of the Federal Building should be maintained, on the south side of Market Street the proposed major building terminating the east end of the Fulton Mall axis should echo the height of City Hall dome.

2. The position of all buildings framing the plaza space should conform with the adopted Civic Center Station Plaza Development Plan. Prominent expression should be given to a pedestrian cooridor extending southward from the plaza and connecting to the Greyhound Bus Station and in the future to a possible Urban University.

D. Outer Market

Extent: Ninth Street to the Central Freeway

1. A secondary cluster of office/residential towers, lower and more widely spaced than the primary office core cluster, is the proposed form image for the area between 9th and 13th streets. The emphasis in this district is upon auto access with transit of secondary importance.

2. To assure an appropriate form relationship to the primary office core cluster a height limit of 350 feet is proposed with sloping transition zones to create a defined hill form and to assure a smooth transition with adjacent low development. On Market Street the east transition zone slopes upward at 45 degrees from 140 feet at 9th Street to 350' approximately at 10th Street; the west transition zone begins at 13th Street at 160 feet sloping upwards at 45 degrees to 350 feet at 12th Street. These transition zones apply only to buildings fronting on Market Street. Additional study (beyond the scope of this project) is recommended to define the transition zone north and south of Market Street.

3. West of Van Ness it is proposed that Market Street eventually be widened from 120 feet to 170 feet to permit additional lanes of traffic and landscaping as a tree lined divided boulevard. To facilitate this development new construction should be required to be set back 25 feet from the present Market Street property lines.

4. West of 13th Street increased residential development is anticipated along this important transit spine. The form image to be encouraged is that of structures starting low at Market Street and stepping upward away from the street in a series of broad terraces. The maximum building height proposed is 160 feet with 120 feet maximum frontage height on Market Street is to preserve sunlight, air and maximum view.

V. SUPPLEMENTARY DETAIL DESIGN CRITERIA

A. Suggested Arcade Design Controls:

Height

1. Minimum height 12 feet

   Maximum height 25 feet unless design of existing building facade requires a higher arcade.

Width

2. Minimum width 10 feet

   Maximum width 15 feet

3. Arcades within a given block front should be of approximately the same height and width. The first arcade established shall establish the general guidelines for the block and shall in it's design consider, where required, potential facade proportions in existing adjacent properties.

4. Where changes of height and/or width between connecting arcades necessarily occur a satisfactory design transition shall be made.

5. Arcades in free standing buildings are not required to match proportions of nearby structures.

6. Arcades should be paved with the same surface material as Market Street sidewalks. Free standing structures may be excepted from this requirement.

7. Lighting and signing in connecting arcades should be compatable.

B. North of Market Multiple Intersections:

No side or front set backs are to be permitted on corner properties of the converging side streets north of Market Street and visible from Market Street. Specifically these are the north corners of the following intersections:

Drumm	-	California
Davis	-	Pine
Battery	-	Bush
Sansome	-	Sutter
Kearny	-	Geary
Grant	-	O'Farrell
Mason	-	Turk
Taylor	-	Golden Gate
Jones	-	McAllister
Hyde	-	Grove
Hayes	-	Larkin
Polk	-	Fell

The purpose of this restriction is to preserve the clear definition and strong character of these intersections.

C. Recommended Pedestrian Ways:

The opportunity and the need exists both north and south of Market Street for the development of pedestrian ways or primary pedestrian corridors. Mid-block pedestrian corridors are particularly needed in the large blocks of Market Street for more convenient pedestrian circulation. In addition to

improving circulation they would also permit and encourage the realization of the full economic potential of the interiors of these large blocks. North of Market Street the mid-block penetrations are generally not needed because of the small block size. The existing corridors, however, should be improved and extended where possible. It is proposed that all pedestrian ways be paved with the same paving materials as the Market Street sidewalks to give visual unity and identity. The proposed pedestrian ways are as follows:

1. From approximately 100 feet east of Seventh Street a pedestrian way focusing on the easterly ornate portico of the Seventh Street Post Office connecting to the proposed interior block amusement area on the east and to the possible Urban University and parking south of Mission Street. A small plaza development adjacent to the Post Office is also proposed as part of the corridor.

2. Beginning approximately 120 feet west of Fifth Street and extending south to a small plaza adjacent to the old San Francisco Mint and to parking south of Mission Street the pedestrian way would also connect to the proposed interior block amusement area. The old Mint is recommended to be used for a public purpose such as a San Francisco Historical Museum.

3. A pedestrian connection to the Fifth Street Parking Garage starting opposite Powell Plaza approximately 100 feet east of Fifth Street. It is proposed this pedestrian way be developed as shopping arcade with connections to the Emporium on the east.

4. Powell Street from Market Street to Union Square is proposed to be developed as a pedestrian mall.

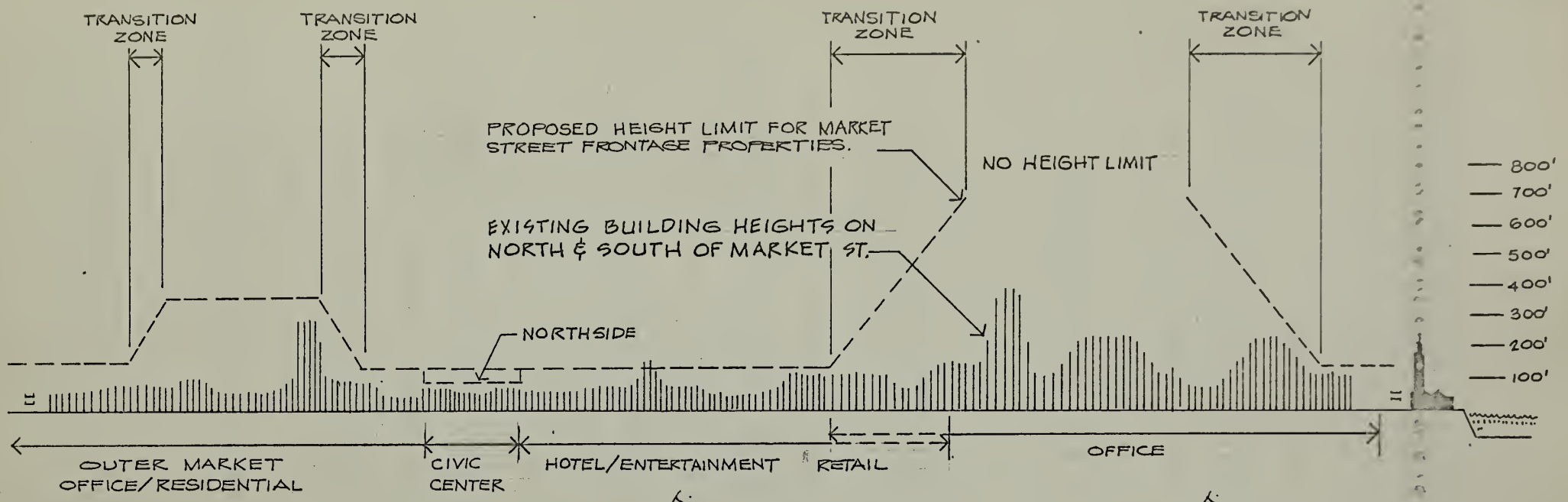
5. Maiden Lane pedestrian corridor extended through the block bounded by Kearny, Post and Market connecting to Market Street and Crocker Plaza.

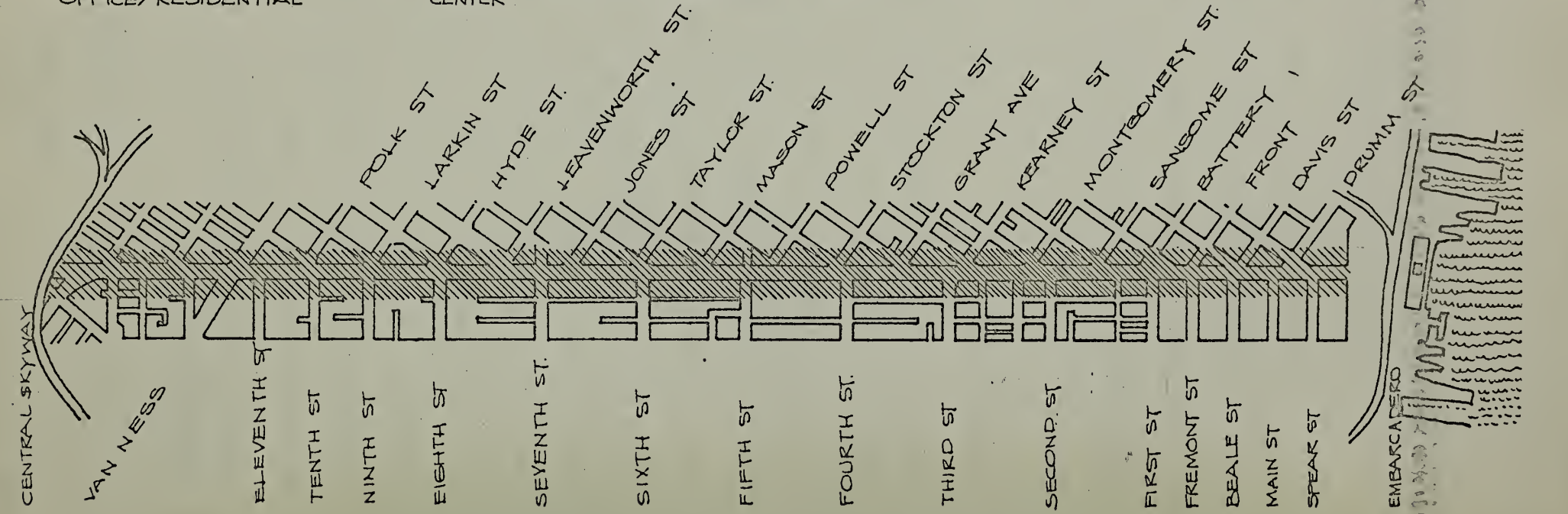
6. The improvement of Annie Street as a pedestrian way with shops and restaurants serving the growing office population in the area. The pedestrian way would connect into the elevated pedestrian network planned for Yerba Buena and parking facilities.

7. Improvement of Ecker Street as a pedestrian way and extending the corridor southward to a future parking complex and the Trans Bay Bus Terminal.

8. Development of a mid-block pedestrian arcade between Fremont and First Streets connecting Market Street directly with the Trans Bay Bus Terminal.

The proposed pedestrian way would be paved with the same paving material used on the Market Street sidewalks.





PROPOSED BUILDING HEIGHT LIMITS ALONG MARKET STREET

SECTION IV

CIRCULATION

I. MARKET STREET

Then the subways are completed and operating Market Street will be a three level transit street with buses operating on the surface, city streetcars on the upper subway level, and BARTD regional rapid transit on the lower level. Commuters formerly arriving at scattered points throughout downtown will converge at three major nodes: the BARTD-MUNI Stations at Montgomery Street, Powell Street and Civic Center, and two minor stations at Van Ness Avenue and Davis Street. Significant changes in pedestrian patterns will result from the concentration of arrival points. Market Street will become a major pedestrian corridor collecting and distributing passengers from the subway stations. For these reasons Market Street from Van Ness Avenue to the Embarcadero has been designated as a pedestrian/transit street requiring that other uses be subordinate to the efficient operation of transit and the provision of adequate space for the comfortable and safe movement of pedestrians.

In studying the transit, traffic and pedestrian characteristics Market Street was found to fall into three fairly distinctive zones:

(1) From 8th Street eastward transit and pedestrian clearly dominated with passengers by auto accounting for only @ 10% of peak hour persons (2) From Van Ness Avenue westward Market Street is predominately auto orientated with high vehicle volumes, very low pedestrian activity and a marked reduction of buses

(3) Between Van Ness and Eighth Street Market Street functions as a transition zone collecting westbound traffic from the north, diverting eastbound traffic to Mission and Howard and the large parking reservoirs south of Market Street.

East of Eighth Street the proportionate area formerly utilized by streetcars has been redistributed to provide wide 35 feet sidewalks and the widening of the vehicular laws to 12 1/2 feet. Bus operations have been improved by keeping all bus stops in the burb lane. As filmed studies of existing bus movements demonstrated buses rarely could or did pull into the bus bays sufficiently to allow curb lane traffic to proceed. The wide lanes in the planned streets will facilitate curb lane vehicles to by-pass loading buses. Although sidewalks have been widened and buses permitted to load in the curb lane the new street will accomodate 15% more traffic than the present street. The elimination of street car loading islands, straightening of the vehicular way, and the wide 12 1/2 feet lanes make this possible. North-south pedestrian crossings of Market Street are made easier due to the reduction of crossing distance from 76 feet to 50 feet.

Between 8th Street and Van Ness Avenue the vehicular way is increased from four to six lanes to accomodate westbound traffic entering from Hyde Street and to permit eastbound traffic bound for the south of Market area to leave Market via 10th and 8th Streets. Sidewalks are 26 feet wide and the vehicular

way is again increased this time from 6 to 8 lanes to accomodate traffic to and from the Franklin-bough couplet and Van Ness Avenue. Sidewalks become 16 feet wide as the vehicular way is increased to 88 feet.

II. THE DOWNTOWN STREET GRID

The structure and natural relationships implied by the downtown street grid system was analyized in Phase II of the Market Street Development Plan. The purpose of this study was to determine the proper and necessary role of Market Street within the context of overall downtown circulation systems and to anticipate possible changes in the directional flow of connecting p streets that could affect intersection designs.

During the course of the study eight alternative schemes were developed incorporating past proposals by the Department of City Planning, the 1963 Downtown Plan Report, and current proposals of the Traffic Division of the Department of Public Works. From a comparison of the alternative plans and how they utilized-or worked against the grid systems and other determinants a series of circulation cirteria was developed. Based upon these criteria a circulation plan was prepared and submitted for evaluation by the electronic traffic assignment model developed as part of the Parking and Traffic Survey conducted by the Department of Public Works. The street directional changes in the proposed circulation plan are summerized as follows:

Principal Street Directional Changes

Name	Present Direction	Proposed Direction
Jones	1-way S	2-way
Taylor	1-way N	1-way S
Mason	1-way S	1-way N
Stockton	1-way S	2-way
Kearney	1-way N	1-way S
Montgomery	1-way S	1-way N
Geary	2-way	1-way E
O'Farrell	1-way E	2-way
Ellis	2-way	1-way E
Eddy	2-way	1-way W
Turk	1-way W	2-way
Mission	2-way	1-way NE
Howard	2-way	1-way SW

In addition to the above the eventual reversal of Sansome and Battery was recommended pending a decision on the orientation of the Broadway ramps of the Embarcadero Freeway.

The analysis of the street grid system and the proposed circulation plan were presented in Interim Report #7 entitled "Circulation Downtown" and submitted August 29, 1966 in Phase II of the Market Street Design Study.

The Proposed Circulation Criteria for Downtown San Francisco in this report are extracted from Interim Report #7. We believe the criteria is still valid today and urge that it be used in the evaluation of circulation plans proposed for the downtown area. The Recommended Circulation Changes presented in the following pages are derived in part from Phase II circulation studies and from additional work during Phase III.

III. PROPOSED CIRCULATION CRITERIA for Downtown San Francisco

1. Passenger automobile traffic, while of vital importance to the continued growth and welfare of the Central Business District, should not become excessive in number as to deleteriously affect other vital functions such as transit, service and delivery and pedestrian mobility.

2. If high automobile volumes are desired beyond levels consonant with the free efficient operation of other necessary functions, it should be accomplished by the addition of independent supplementary auto systems and not at the cost of pedestrian comfort, transit effectiveness, service and delivery efficiency or environmental conditions.

3. The street directional pattern should recognize the differing requirements of transit and automobile by providing a balanced arrangement of auto-oriented streets and transit oriented streets that will allow both the effective operation of transit vehicles and the efficient movement of automobiles. It is concluded from studies in San Francisco and other cities that transit is used more frequently when routes follow 2-way streets and automotive traffic obtains higher volumes for a given width of roadway on one-way streets. Transit-oriented streets then should be two-way, automotive streets should be one-way.

4. The directional pattern of streets should be orderly and easily understood. Insofar as possible a repetitive pattern of one-way and two-way streets is desirable.

5. The nature of the street (one-way auto-oriented or two-way transit-oriented) should indicate the type of connections it makes. Streets crossing Market should be identifiable from streets approaching but not crossing Market Street. The motorist would quickly learn, for example, that all one-way streets approaching Market Street would cross Market and that two-way streets would either stop short or feed onto Market Street, Two-way streets, unlike one-way streets, generally would not connect to freeway ramps or major traffic arteries.

6. Market Street, because it cuts through or touches all the important functional areas within the downtown, and in addition will have under its surface two major rapid transit systems, is the primary transit artery serving the downtown. While it is the aim to provide for the ease of circulation of other vehicles, they should not be allowed to impair the efficient movement of surface transit behicles or the comfortable progress of pedestrians on this street.

7. Transit-oriented streets feeding into the downtown and tangent to Market Street should flow onto or terminate at Market Street. Automobile-oriented streets should be able to flow across Market Street to facilitate joining the north and south areas of the C.B.D. more firmly together.

8. Major parking facilities should relate to automotive-oriented streets and should be on the edge of the core area outside of zones of existing street congestions. Parking should be provided in a manner that will not conflict with adjacent uses or form a development barrier.

9. Transit-oriented streets should be distributed evenly so that no one is more than a short walk, perferably not more than two blocks away from a transit line. This should apply primarily to blocks north of Market Street; the parger blocks south of Market would require transit within one block for equivalent service.

10. Two-way streets have proven to provide better emergency access than one-way streets. Two-way streets should therefore be provided at frequent intervals to facilitate emergency response.

IV. RECOMMENDED CIRCULATION CHANGE

(1) The following portions of streets should be closed to through vehicular traffic and converted to pedestrian ways, malls or plazas:

1. California from Brumm to Market Street.
2. Bush from Battery to Market Streets.
3. Ecker from Market Street to 100' south.
4. Annie from Market Street to 100' south.
5. Powell from Ellis to Market Street.
6. Eddy from Anna Lane to Market Street.
7. Leavenworth from McAllister to Fulton Streets. (Except for service access to Federal Building.)
8. Fulton Street between Hyde and Market Streets.
9. Battery from Bush to Market - when the Sansome-Battery one-way couplet is reversed. These changes are essential to the development of significant urban spaces and the development of the pedestrian circulation system.

(2) Reversal of the Kearney-Montgomery one-way couplet with Kearney southbound and Montgomery northbound.

This change would improve access to and from the Portsmouth Square Garage via the Clay-Washington ramps of the Embarcadero Freeway, eliminate conflicting turning movements at Kearney and Columbus and at Washington and Columbus. Note: in conjunction with this change Stockton should be made 2-way throughout and the Market Street intersection improved.

(3) Reversal of the Sansome-Battery one-way couplet with Sansome southbound and Battery northbound movement from downtown to and within the northern waterfront would be improved, the intersection of Battery, Bush and Market simplified eleminating the need for that portion of Battery between Bush and Market. Opening up this space for pedestrian usage would permit the creation of a distinguished small plaza complementing the existing Mechanics Statue Plaza.

(4) Channel eastbound Grove Street traffic at Hyde so as to permit only a right-turn onto Market westbound permitting Hyde Street traffic load on Gough Street by serving as a close-in collector for Market Street bound traffic originating north of Market Street.

(5) Improve the intersection of Stockton and Market Street to facilitate N-S traffic movement:

This would eliminate much of the present congestion on both Market Street and Stockton Street resulting from this awkward intersection. It would also permit Stockton and Fourth Street to be reinstated as a primary N-S 2-way transit street.

(6) A-Change 5th Street from 2-way to one-way northbound connecting to Eddy Street. (Change from 2-way to one-way westbound) and Mason (Changed from one-way southbound to northbound.)

These changes would eliminate any need for widening the Fifth Street extension beyond 52 feet and thus harming the design of Powell Street Plaza, and would permit Anna Lane to function more appropriately as a service and delivery street.

B. Change 6th Street from 2-way to one-way southbound.

The replacement of 2-way N-S crossings of Market Street by one-way cross streets will facilitate N-S movements. This would also compliment making 5th Street northbound.

C. Reversal of Taylor-Mason one way couplets with Taylor southbound and Mason northbound.

Required in conjunction with making 5th Street. One way north and 6th Street one-way south.

6. A-Stockton changed from one-way southbound to two-way operation-recommended in conjunctinn with improvement of the Market Street intersection.

This change would improve transit operation and patronage on the #30 bus line and is essential if the Kearney-Montgomery couplet is to be reversed.

B-Widening of the Stockton Street vehicular way from Sutter to Market by arcading the sidewalk under frontage buildings or minor widening with elimination of all curb parking and loading zones.

8. Changing Mission and Howard Streets from two-way to one-way operation with Mission eastbound and Howard westbound.

9. Widening Main Street between Market and Howard Streets with adjustment of the Main Street Freeway off-ramp to permit the continuation of Drumm Street traffic directly across Market Street and connecting to the Main-Beale one-way couplet at Howard.

   This change would eliminate the conflicting awkward S-turn for southbound vehicles and increase the usefulness of Drumm Street.

SECTION V

SERVICE AND DELIVERY

I. BACKGROUND

A. THE NATURE OF THE PROBLEM

In recent years much effort and concern has been directed toward the problem of efficiently bringing people into the center of our cities. Often overlooked is a problem of equal importance to the vitality of the core area: The distribution and collection of the myriad items, from paper clips to pianos, that enter and leave the downtown every day, and the servicing and repair of the complex machinery the core area depends upon. These activities are fundamental to the daily functioning of the downtown area, every item sold, consumed or used in the Central Business District was brought in by truck and quite often picked up by a truck again after it has been purchased, used or discarded. Telephones, typewriters, elevators, computers and a vast array of business machines require regular maintenance. Buildings are often subject to almost continual repair, alteration or renovation. Much of this service and repair work is from trucks or other vehicles parked convenient to the work to be performed.

Service and delivery vehicle movements are characterized by frequent stops, starts and turns. Depending on the purpose of the trip the vehicle may stop at a place of business for 5 minutes, a half-hour, or a whole day. The driver may not know in advance how long a stop may take. Because of the nature of service and delivery vehicle operations, they effectively

occupy much more street space and conflict sharply with the desired movement of other vehicles. In turn non-commercial traffic by its sheer volume causes expensive delay and difficulty in the performance of service and delivery operations. Each day approximately 13,200 trucks enter and leave the Netropolitan Traffic District between 10:00 and 6:00 p.m. During the same time period roughly 225,000 automobiles crowd into the same area. By the year 1985 the State Division of Highways predictsa 90% increase in the 24 hour count of vehicles entering the CBD. If this projection is fulfilled only in part, street congestion may be expected to seriously impair service and delivery. Conversely the traffic impedence caused by the present pattern of service operations will become intolerable. Without significant improvements in service and delivery operations within the foreseeable future, and without proper planning for and control of the mass of vehicles seeking access into the core area, a debilitating paralysis of traffic and transit will become inevitable.

B. OPERATIONAL CHARACTERISTICS

The 13,200 commercial vehicles counted entering and leaving the Metropolitan Traffic District in the recent Parking and Traffic Survey give ample evidence of the scope and complexity of service and delivery operations required to maintain the core area. Proprietary, for hire trucks, and messenger services, combine to make this awesome daily total.

The trucking "industry" ranges from one-truck family businesses to companies owning hundreds of vehicles and run from general hauling to specialty work such as moving exhibits or handling foods and drugs. Several hundred trucking firms are located in the immediate San Francisco area.

Out of these 36 major drayage companies are the dominant movers in the downtown, augmenting by some 13 messenger services and 49 delivery firms handling special point to point service in San Francisco, Private trucks from a host of suppliers and numerous rental trucks form a considerable part of the volume. The major drayage companies usually organize their operations into a system of delivery areas from four to eight blocks in extent. In theory a truck will transverse the area one or more times a day making deliveries and a pre-arranged route, and upon completion of deliveries the trucker then calls upon each subscriber in the area to collect items for subsequent delivery. However, in fact, the "pick-up" phase often becomes complicated by the necessity of making second calls on firms with late deliveries breaking the planned route into an invloved repetitious run.

The overlapping service areas of the many drayagecompanies operating in the downtown results in each company running parallel routes with partially filled trucks. Often several drayage firms will serve different customers within the same building producing a condition where the service for each client falls far below the total level of service to the building. This pattern of duplicate or even quadruplicate service places a heavy demand upon already congested streets and limited service facilities. The high cost of this sort of inefficiency is daily becoming more critical and undoubtedly will force consolidation and modernization with or without planning.

A side effect of the over-competition in the core area is that the size and type of vehicles is inappropriate to the load carried. Larger than required partially loaded vehicles cause unnecessary street congestion while maneuvering and occupy disproportionate curb space. Trucks without side loading

require longer parking space for their operation consequently spend more time waiting for space.

It is a paradox that some of the smallest, most marginal businesses generate some of the heaviest frequency of service and delivery calls. A small diner will daily receive separate deliveries of milk, bread, English muffins, meats, pies, soft drinks, linen and kitchen supplies. On the other hand, a chain restaurant many times larger may only require 2 or 3 consolidated deliveries. The heaviest accumulation of commercial vehicles on Market Street is for a block with some of the most marginal operations.

Picking up and making deliveries is frequently complicated by inadequate communications. A typical example would be a trucker parking, taking an elevator to the client's place of business only to find there will be no pick-up today, or that it will be delayed for a couple of hours. Each time this happens, 15 to 20 minutes are lost and curb space wasted. Incorrect or inadquate addresses failing to specify the delivery entrance also can waste time. Along with this are poorly identified service entrances to buildings. Every delay of this nature adds to the overhead costs, contributes to street conjestion, and wastes available loading zones.

A critical source of delay and cost in delivery operations downtown is inadequate available space for parking of service and delivery vehicles. Superficially one might conclude that the answer to inadequate space is simply to provide more. Under the present pattern of usage more space would probably only result in more abuse. The misuse of curb and off-street loading areas are responsible for most of the problems credited to

lack of space. Perhaps the most notable offender is the common station wagon. Today the station wagon accounts for 17.4% of all vehicle time parked on Market Street. The average time parked is 33 minutes compared to 21 minutes for trucks under 40 feet and 23 minutes for trucks over 40 feet. What this indicates is that many station wagons remain parked for prolonged periods, that in fact too often the station wagon is just a tax deductible excuse for using loading zones for private parking.

CURB USAGE FOR

MARKET STREET AND ADJACENT STREETS WITHIN ONE BLOCK

BY VEHICLE TYPE

Vehicle Type	% VEHICLES Mkt St	% VEHICLES Mkt and Adjacent	% TIME PARKED Mkt St.	% TIME PARKED Mkt and Adjacent	Average DURATION (Minutes) Mkt St	Average DURATION (Minutes) Mkt and Adjacent
Auto	52.5	52.4	54.8	62.4	27	56
Taxi	1.6	5.2	0.6	1.0	10	9
Station Wagon	13.3	13.5	17.4	14.8	33	51
Truck less than 40 feet	27.6	25.9	22.9	19.8	21	36
Truck more than 40 feet	3.4	2.2	2.9	1.6	23	32
Other	1.6	1.8	1.4	.4	21	26
Total	100.0	100.0	100.0	100.0		

Data Source: Downtown Parking and Traffic Survey data extract by Transit Task Force

* 37.4% of station wagons are registered as commercial vehicles in entire DPATS survey area.

The police report that the station wagon is becoming one of the most difficult policing problems within the downtown. While the ordinary automobile is a problem too, illegal usage is easier to determine and prove. Despite intensive ticketing of illegally parked vehicles, abuse of loading areas continues. A check of Stevenson Street (an alley in fact) at almost any time of the day will find extensive auto parking, many remaining all day. The service and delivery pattern indicates that front entrances on the south side of Market Street are being used even though rear access exists, evidence of the present mis-use of Stevenson Street. It would appear that parking tickets are considered by some more convenient and economical than parking lots. If unchecked this mis-use of critically needed service and delivery space will seriously affect the ability to provide adequate levels of service in downtown San Francisc

Another common offender worth mentioning are service vehicles. When a service vehicle is continuously utilized as a supply center for tools and material it is resonable that it be parked as near the work area as possible Quite often, it has been observed, the service vehicle is unloaded in the morning and not utilized again until the end of the day except to take employees away. Such vehicles needlessly parked in prime service zone can cause costly time consuming delays in delivery operation and contribute to street congestion. Voluntary cooperation by service companies and building owners in moving such unused vehicles to less critical areas or to parking facilities could reduce this wasteful practice.

II. A PROGRAM FOR CORRECTIVE ACTION

The City can stimulate operational improvements through zoning controls and police power; however, it cannot re-organize the trucking industry for greater efficiency or legislate the full cooperation of all concerned businesses. The ultimate correction of operational problems will have to come from the trucking industry and related businesses. Such civic associations as the San Francisco Chamber of Commerce and the Market Street Development Project have begun study and discussion of the problems. A broader base for these discussions is needed to achieve meaningful action. Perhaps the most effective action the City can take now is to promote and provide technical support of discussions between City agencies, the trucking industry, private businesses and business organizations in the Central Business District. Such discussions hopefully would lead to the formation of a downtown service, delivery and traffic council Advisory to the Mayor to explore means for resolving the service and delivery problems in the CBD. A special subcommitee to prepare plans for the specific problems of Market Street is suggested. The joint sponsorship of a comprehensive detailed study of the present service and delivery practices and the development of a program for organizational, procedural, and equipment modernization would ideally be the first concrete action of the council. A joint planning effort will assure the maximum cooperation and support of both public and private sectors.

The following objectives for operational practices are recommended for the improvement of servicing and delivery within the downtown and on Market Street:

1. To reduce congestion on downtown streets, enable loading zones to operate more efficiently and effect economies in delivery operations, duplication of service should be eliminated wherever possible.

NOTE: The first step is to eliminate duplicate or overlapping service areas wherever possible. A long range proposal for development of central delivery terminals serving all buildings within a defined area by special compact vehicles has been suggested as a possible means for achieving unified service. Truckers would make all their pick-ups at a few such terminals instead of canvassing large areas. The central delivery terminals might be developed by a profit or non-profit corporation composed of associated delivery services. Possible city participation with a non-profit corporation should be explored.

2. Service vehicles not required on a continuing basis for supplies and equipment should be removed from limited delivery zones or service areas.

NOTE: If voluntary cooperation proves ineffectual, special street parking permits and fees should be considered to encourage the use of regular parking facilities. The provision of special commercial vehicle parking lots close in to Market Street should be explored.

3. The mis-use and abuse of service and loading zones should be minimized by the application of more strict enforcement procedures if present controls prove inadequate.

NOTE: The use of truck-only or commercial vehicle only zones and tow-away procedures for violators appear to offer the police the most effective means to combat abuse. Trial application should be tested as soon as possible.

4. The use of small vehicles especially designed for use on crowded urban streets should be encouraged.

NOTE: Inclusion of mini-trucks or three-wheeled delivery carts under the truck-only zone with possible special parking provisions for miniature trucks would aid in encouraging their use.

5. The institution of standardized procedures for addressing packages destined

for delivery downtown, identification of service entrances, and a system for signalling if there is a pick-up to be made within a building are badly needed improvements.

6. To minimize policing problems and reduce traffic conflicts, commercial and private passenger vehicle ways and parking areas should be separated.

NOTE: Parking lots served off of Stevenson Street presently cause considerable delay from the back-up of cars onto the street. Adequate reservoir space should be required if retained as auto park lots. A more appropriate use to be considered are their use as commercial vehicle parking areas for use by service and sales vehicles.

7. Physical obstructions, unnecessary curbs, etc., should be eliminated in service streets wherever possible. On-site loading facilities should be required of all new construction except for sites of such size or shape that provision would constitute an undue hardship or where there is no access to rear or side streets.

NOTE: The size of a structure is not always directly related to the amount of servicing and delivery activity generated. Consideration should be given to making permitted uses contingent upon service access.

III. DESIGNING FOR SERVICE AND DELIVERY ON MARKET STREET

A. DESIGN GOAL

A fundamental purpose of the Market Street Design Project is to prepare plans for making Market Street a great and beautiful street. As the focal point of the City's life and the linking corridor between the vital centers of of activity in the core area nothing less than "great" should apply. Today the street functions as a joining edge to the business, commercial and civic areas. In the future with the completion of the BARTD system, on-going and anticipated private development Market Street will re-emerge as the center of activity in San Francisco.

The creation of a great street involves much more than the widening of sidewalks, planting of trees and other beautification measures. Equally important is the ordering and harmonizing of the myrad functions competing for space on the street. Businessmen rushing to appointments, pedestrians waiting for buses, messenger boys on bicycles, repair service and a bewildering array of vehicles making deliveries are but a few of the infinite variety of uses the street is put to daily. Increasing pedestrian volumes generated by BARTD, intensified development along the street and the maintenance of efficient surface transit as well as esthetic considerations combine to force the more inefficient uses to peripheral locations off the street.

In relation to the concept of Market Street as a "grand avenue" service and delivery operations are perhaps the most inappropriate. When mixed in with other uses they add to traffic congestion on the street, hinder and endanger

pedestrian movement and safety, and negate the intended visual character of the street. These functions by their nature properly belong away from the primary street activity. In any distinguished plan functional services should be made inconspicuous, just as in a residence deliveries are made to the service entrance, not through the front door. If Market Street is to emerge as one of the great streets of the world, it is an essential goal that in-so-far as possible service and delivery functions be shifted from Market Street or restricted to a time period that will not conflict with critical street activity. Every step should be taken to minimize the functional and visual disturbance of Market Street by service and delivery and to achieve new standards of efficiency for these functions.

Early in Stage III of the Market Street Design Study it was concluded and adopted as official design policy that the best approach for providing for service and delivery needs was to create service bays tailored to the special requirements of each block. The advantages of this approach are (1) it minimizes the visual disturbance of the street scene, (2) inhibits abuse and facilitates police supervision, (3) it can be adjusted from time to time reflecting redevelopment of problem situations and improved efficiency, and thus (4) provides a positive means for implementing the basic design goal of shifting service and delivery functions to side and rear streets.

B. BASIS FOR DESIGN

In Phase II of the Market Street Design Study service and delivery problems on Market Street were studied in detail and the finding published in Interim Report Number 5, April 20, 1966. The kinds of access problems, estimated

number of daily deliveries and commercial vehicle curb accumulations were surveyed and mapped to obtain an accurate pricture of the problem. Planned and anticipated public and private redevelopment and the relative development potential of frontage property was analyized to assessthe estimated duration of problem conditions. A commercial vehicle diversion study was made by the Transit Task Force to explore the potential for diverting commercial vehicles from Market Street to rear and side streets.

The summary conclusions of these studies are as follow:

(1) The complete solution of removing service and delivery operation from Market Street is not attainable in the immediate 3 year subway construction period. Only about 17% of access problems can reasonably be eliminated within this time unless exceptional action is taken.

(2) Within 10 - 12 years after subway construction access problems reasonably could be reduced to approximately 10% of present problem conditions. At this level service and delivery operations would create minimal visual and functional disturbance.

(3) Certain service and delivery functions of special character must remain on the street such a postal collection, bank deliveries, special messenger service, and taxi. As other on-street service and delivery activities are reduced or eliminated special provisions for these functions should be provided.

In the summer of 1965 a Traffic and Parking Survey was made by the Department of Public Works. As part of this survey the curb accumulation of commercial vehicles for each block was recorded at half-hour intervals over a seven hour period. The size of service bays was based upon the peak accumulations observed for each block and consideration of certain modifying factors. Reductions were made in the number of spaces to be provided (1) where public or private redevelopment would eleminate known problem conditions, (2) where some diversion to rear or side access was considered feasible, and (3) where the pattern of curb accumulations for the seven hour period indicated that some spreading in delivery time was reasonable.

14 problem buildings and 39 problem businesses--buildings or businesses without side or rear access--will be eliminated by planned public and private redevelopment along Market Street. The diversion study prepared by the Transit Task Force demonstrated that there was adequate available curb space for shifting commercial vehicles from Market Street to rear and side streets. Reductions were allowed for this reason only where there would be little increase in distance and/or where the availability of rear or side access indicated these alternate points of access were not fully utilized. The size of bay to be provided was based upon the following schedule:

VEHICLES	LENGTH OF BAY
1	60 Feet
2	80 "
3	100 "
4-5	120 "

At certain locations the configuration of bus stops, pedestrian crossings or other major design factors necessitated minor adjustments in bay sizes. In some instances bays were made larger for design reasons or to provide for taxi loading areas. Wherever possible it was attempted to locate the bays closest to those buildings and businesses without rear or side access.

Comparing the number of vehicles spaces provided by bays with the total peak accumulations observed in the 1965 survey without discounting for planned redevelopment 30% fewer spaces will be provided on the south side of Market Street. The changes that the Yerba Buena Redevelopment Project alone will effect will reduce this to 22%. Anticipated private reconstruction and the proposed Civic Center Plaza will reduce the difference even further. Even at 22% fewer spaces the diversion to rear or side access or to different time schedules is considered quite reasonable in view of the convenient rear access provided by Stevenson Street. On the north side of Market Street the number of loading spaces provided in 20% fewer than the total peak accumulation, when the Fifth and Seventh Street breakthroughs are accounted for the number of spaces is approximately equal. It should be noted that the total of peak accumulations of every block front is considerably higher than the peak observed for any one time period. Less diversion have been allowed on the north side in the absence of specific plans for the re-allocation of curb space use on rear and side streets. This necessarily cannot be done until after completion of current downtown traffic plan studies.

It is the conclusion of our analysis that the service bays provided in the Schematic Plans for Market Street are adequate to serve the needs of the Street. The adjustments required in service and delivery patterns are modest and can easily be accomplished without hardship or penalties to the businesses fronting on Market

C. Continuing Studies

If circumstances permit and there is an interim period between completion of subway construction work and construction of the new street and additional survey of service and delivery patterns on Market Street is recommended to enable refinements and possible reductions in the size of bays to be made prior to construction. Specifically what is desired from the survey is (1) determination of what portion of on-street deliveries are being made to buildings and businesses with rear or side access, and (2) with completion of downtown circulation plans a determination how much service and delivery activity can be shifted to side and rear streets, particularly north of Market Street.

After completion of the new Market Street it is strongly recommended that on-street service and delivery requirements be re-evaluated every five years or whenever significant changes along the street or improvements in service and delivery procedures have been made. Based upon the findings of these surveys service bays should be adjusted accordingly to implement the ultimate objective of the complete elemination of serviceand delivery functions on Market Street.

SECTION VI

SIGN CONTROLS

I. INTRODUCTION: THE OPPORTUNITY FOR CHANGE

This section of the report concerns signing, one of the most important elements creating the visual environment of the street. In the retail and entertainment section in particular, signs constitute the dominant element of the street facade, and in instances are in effect the facade.

When reconstructed, Market Street will be changed from a strictly utilitarian street to a gracious tree lined boulevard. The change will eventually cause every business fronting the street to re-evaluate its relationship to Market Street. A wide range of pedestrian amenities, new opportunities to utilize the wide sidewalks for a variety of activities, and the very quality of finish and design will demand in return greater care in the design of signs and store fronts. A cheap run-down storefront on an equally cheap run-down street will evoke no comment; place the same storefront on a beautiful street and it becomes an irritating eyesore.

Hopefully, the necessary reorientation the new street will require will be viewed not so much as a problem as a rare opportunity. A dynamic private program to improve store fronts and signs coordinated with public street improvements could accomplish in the next five years what would take twenty-five years on a piecemeal basis. The question Market Street merchants and businessmen will have to answer is: can they afford not to meet the challenge?

In any significant effort to upgrade the image of the buildings and businesses fronting

the street an essential part will be the improvement of signs. Through the energetic support of general signing goals by private enterprise and the judicious application of design guidelines and controls, Market Street can achieve that rarest commodity: a special identity and character that will place Market Street on par with the great streets of the world.

II. Existing Conditions

In proposing controls on signing, it is important to recognize both the real advertising-communication needs of each area and the development trends or desired changes in each area. Improper signing as well as improper sign controls can actively work against the optimum development of an area. The existing sign pattern--how it works or fails to work--offers the best clues as to what signing should be. Signs should be considered individually as they reflect the nature and needs of the activities they advertise, and in the aggregate as they may reflect the needs of an activity area. An example of the latter case is in amusement areas, where the overall effect of signs within a block may be more important to an individual business than the individual effectiveness of its own sign.

Walking from the waterfront westward along Market Street, the casual observer cannot help but notice the changing character of signing as he moves from one activity to another. The Office, Retail, and Hotel/Entertainment areas each have their own special character. In the Office area the restrained understatement of a small bronze plaque establishes an attitude and mood completely different from the garish marquees of the old movie palaces in the Hotel/Entertainment area. The Retail area, situated between these areas, functions as a sign character transition zone: not as restrained as the Office area, not as agressive and visually noisy as the Entertainment area. The greatest contrast is to be found between those places along the street where signs are the dominant determinant of the visual environment, such as between Mason and Taylor, and where architecture dominates, such as between Sansome and Battery.

EXISTING ZONES OF SPECIAL SIGN CHARACTER

Because of the highly defined structuring of functional areas along Market Street it has been possible to draw reasonable boundaries around existing areas or zones of relatively distinctive sign character. These zones generally reflect the functional districts delineated in the 1963 Downtown General Plan Report. The existing zones of special sign character are illustrated on page and are described as follows:

Zone A (Office)

Extent: From the Embarcadero to Third on the south, to and including the northwest corner of Kearny and Market Streets on the north.

Description: Some older buildings and particularly new office development show extreme restraint in signing, the result of a purposeful effort to establish an institutional image. All evidence indicates this is the dominant trend of development in the area. Such restraint obviously is and will not be appropriate to all activities along this zone of Market Street. This poses the problem of how to allow these ancillary activities to express themselves in a manner compatible with the dominant character being established. The signs on most of the ground floor commercial establishments are more reserved than in any of the other zones; however, a few glaring exceptions presently prevent the creation of a stronger area image.

Zone B (Retail)

Extent: From Third Street on the south side to and including the southwest corner of Fifth and Market Streets (J. C. Penney); from west of

northwest corner property of Kearny and Market Streets to Powell Street on the northside.

Description: The signs in the retail area are larger and of much greater design variety than those in Zone A. Store fronts have been remodeled, in many cases out of context with the building architecture or adjacent stores, to become in effect the backdrop or frame of an applied sign. As a result of the competitive effort of each enterprise to be distinctive, the street is visually chopped up with the net result that few signs really communicate effectively and the overall environment is cheapened. A high incidence of poorly designed signs further detracts from the creation of a quality image. While most signs represent a sincere effort to do a good job improving the street frontage, a lack of coordination has defeated much of the effort.

Zone C (Hotel/Entertainment)

Extent: Starting west of J. C. Penney's at the southwest corner of Fifth and Market to approximately mid-block between Seventh and Eighth on the south side and from Powell to Fulton on the north side.

Description: The size and agressiveness of signing reaches its peak in this zone of Market Street. Here theater marquees, diners, and cut-rate bargain stores compete for the public's attention. The jumble of brilliantly lit signs does create a sense of energy and excitement at night necessary for the success of entertainment.

activities. Too many of the signs in this area are both poorly designed and constructed and may best be described as "honky-tonk." If this area is to realize its full economic potential, it must be made more attractive to more people. While the nature of some of the activities is the primary problem, better signing will help. The problem is how to retain the spontaneity and vigor that exists, yet up-grade the general design quality of signs.

Zone D (Outer Market)

Extent: Beginning approximately mid-block between Seventh and Eighth on the south side and at Fulton on the north side to the Central Freeway Overpass.

Description: The easterly part of this zone from Seventh Street to Van Ness Avenue is presently undergoing a radical transition from an area predominantly composed of small marginal specialty shops to an area of high-rise office, hotel, and residential use. Fox Plaza, combining office, residential, and commercial, may be prototypical of new development in the area. It is anticipated that the redevelopment forces at work in this area will eventually spread west of Van Ness Avenue. Unlike the other downtown zones, the outer Market area is more strongly auto oriented.

III. Existing Sign Regulations

The existing provisions of the San Francisco Sign Ordinance applicable to Market Street do not limit the size of signs except through a few restrictions on placement on buildings and extension over the street. These restrictions limit the projection of signs over Market Street to 12 feet from the front property line. Free standing signs are limited to 40 feet in height from the curb to the top of the sign. Any sign mounted on a front building wall may extend as high as the wall itself; such signs may also extend above the top of the wall if they do not reach more than 40 feet above the curb or more than 10 feet above the roof line, and if no more than half of the area of the sign is above the roof line.

Signs mounted on roofs are not permitted with the exception of certain signs having a building wall as a backdrop. Wind signs and signs with moving parts are not permitted except that general advertising signs may have moving parts meeting established criteria. General advertising signs are permitted along Market Street. The type of illumination is not limited in any manner (including flashing) nor are there any restrictions on colors or materials.

IV. Nature of Proposed Controls

The proposed sign controls have been derived in part from the existing general character of signs and from signing trends within each district. The controls would not represent a sharp break from the existing pattern but rather would be in harmony with much of the present signing. To give each functional area and major open space its own character, Market Street has been divided into several special sign districts, each with its own set of controls related to signing needs of the area. Continuity is provided by overlapping certain controls and design features between adjacent districts. The controls proposed are not intended to limit individual expression but are put forward for the more positive purpose of insuring a reasonable standard of quality, compatibility of adjacent signing, and to encourage a distinctive Market Street sign character. The development of an identifying sign character for Market Street is to be achieved through a combination of restraints and encouraging certain unique types of signing.

V. Proposed Special Sign Districts

It is proposed that five Special Sign Districts be created along Market Street from the Embarcadero to Twelfth Street, and that the existing Civic Center Special Sign District be extended. The proposed districts correspond generally to the functional areas on Market Street and the major plazas. Beginning at the Embarcadero, District A (Office) extends to Kearny and Third Street. At that point District B (Retail) begins, ending at the Powell Plaza Special Sign District. Powell Plaza is proposed as a separate district because of the special opportunities and problems that occur at this juncture of the retail and entertainment sectors. District D (Entertainment/Hotel) consists of the area between Powell and Civic Center Station Plaza. The planned Civic Center Station Plaza and the possibility of future public buildings and/or space use around the plaza is the basis for extending the Civic Center Special Sign District to encompass this part of Market Street. The fifth special district proposed runs westward along Market Street to Twelfth Street and depending upon future development trends may be expanded further west. All districts extend laterally on side or cross streets to the first property line, and would include all structures framing plazas or open spaces along Market Street and corner buildings between converging streets on the north side visible from Market Street.

PROPOSED SPECIAL SIGN DISTRICTS

VI. Design Review

Controls regulating size, color, illumination techniques, and placement, no matter how detailed, cannot insure good design. No ordinance can anticipate the multitude of possible design relationships on a building facade, much less an entire blockfront. At best, controls can provide an organizing framework and prevent serious design abuse. Design review and approval within the context of established design policy and intent is therefore recommended to be required for all new signs and facade alterations along Market Street. Design review would properly express the City's concern for good design. The review process, requiring studies of adjacent facades and signs and detailed design studies of the proposed sign as it relates to the street environment, would insure the thoughtful consideration of each proposal and stimulate private business to secure the best possible designers.

VII. General Sign Policy for Market Street Special Sign Districts

1. To encourage a distinctive sign character for Market Street.
2. To allow and encourage each activity area along Market Street to express its own special image through signing within the unifying context of an overall sign character for Market Street.
3. To permit each sign to project its own message or image without undue conflict to or from adjacent signs.
4. To provide sufficient design freedom for the expression of mercantile vitality and individuality yet protect the character and quality of the Street and each activity area.
5. To safeguard and enhance property values along Market Street through maintaining a high quality of sign design and construction.
6. To protect the public investment in public plazas and street improvements along Market Street.
7. To provide an environment which will promote the development and strengthening of business in the various activity areas along the Street.
8. To encourage good design and sound practices and lessen objectionable effects of uncoordinated competition in respect to size, placement, and techniques of signing.
9. To aid in the attraction of tourists and other visitors to Market Street.
10. To increase the effectiveness of both public and private signing.

11. To reduce hazards to pedestrians and motorists.

12. To aid in efficiently coordinating the changing nature of signing along Market Street.

VIII. General Design Criteria

A. Redundant signing where the message is repeated or unnecessary and excessive listing of goods or services is deplayed is to be discouraged. Too many messages can saturate and negate the viewer's ability to react with the result that essential messages are lost in the rush.

B. The design of signs should be appropriate to the character of activity or service advertised.

C. The use of symbols, logos, iconic images and trademarks should be encouraged.

D. Zones of public and private signing should be clearly established for reasons of public safety and design clarity.

E. Flags and banners, suspended individually singley or in orderly groupings, would be encouraged in the core area (Distracts A, B, C, and D). Such signs must be temporary and would be subject to review of the sign design and placement.

Note: Wind signs which are defined in the San Francisco Sign Ordinance as "Any sign in the nature of a series of two or more banners, flags, or other objects, fastened in such a manner as to move upon being subjected to pressure by wind or breeze" are not permitted.

F. Signs should be designed and placed in a manner so as to minimize the visual interruption of the architectural order of the buildings. Signs should not pass in front of windows, doors, bays, columns, cornices, etc., unless they are designed to be integrated with these elements.

G. The permitted area of sign may be in the form of two signs provided that the major sign is not less than two-thirds of the total area.

H. Signs for different establishments adjacent to each other within a single building shall be designed to relate harmoniously to each other.

I. Store front facades insofar as they are in effect an advertisement or "sign" (designed to call special attention to themselves) are to be subject to design review, the following criteria applying:

1. Where different facing material from the building facade is utilized, it shall be terminated at a building line such as a cornice or continuous lintel line, otherwise the entire building facade should be treated as a whole. The storefront facade must be integrated with the building facade.

2. Adjacent establishments within a single building shall use a similar or compatible facade treatment unless excepted by the Review Board from this requirement.

J. Signs shall be well constructed of quality materials and finishes.

K. No private signs shall be supported in the public right-of-way except on approved vending or display kiosks in locations shown in the Master Plan for Market Streets.

L. Decorative lighting, where permitted, must be mounted in such a way as not to disfigure or detract in any way from identified buildings of architectural or historic interest or anh other structures the Design Review Board determines deserve special consideration.

M. Illuminated signs using colors close to or that could easily be mistaken for traffic signal colors are prohibited in locations where they could be confused with traffic signals by motorists.

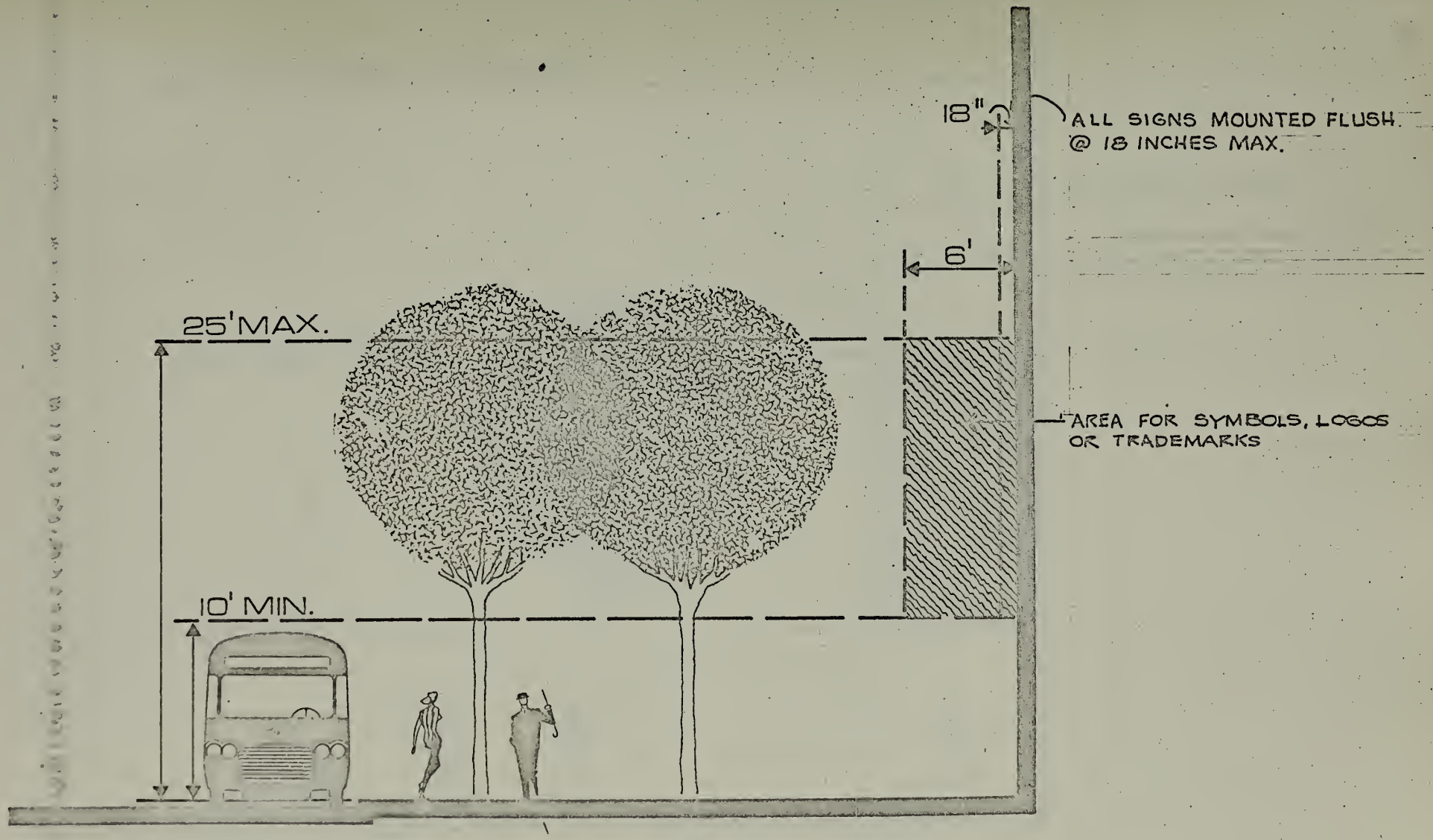
IX. DESIGN CONCEPT

District A--Office

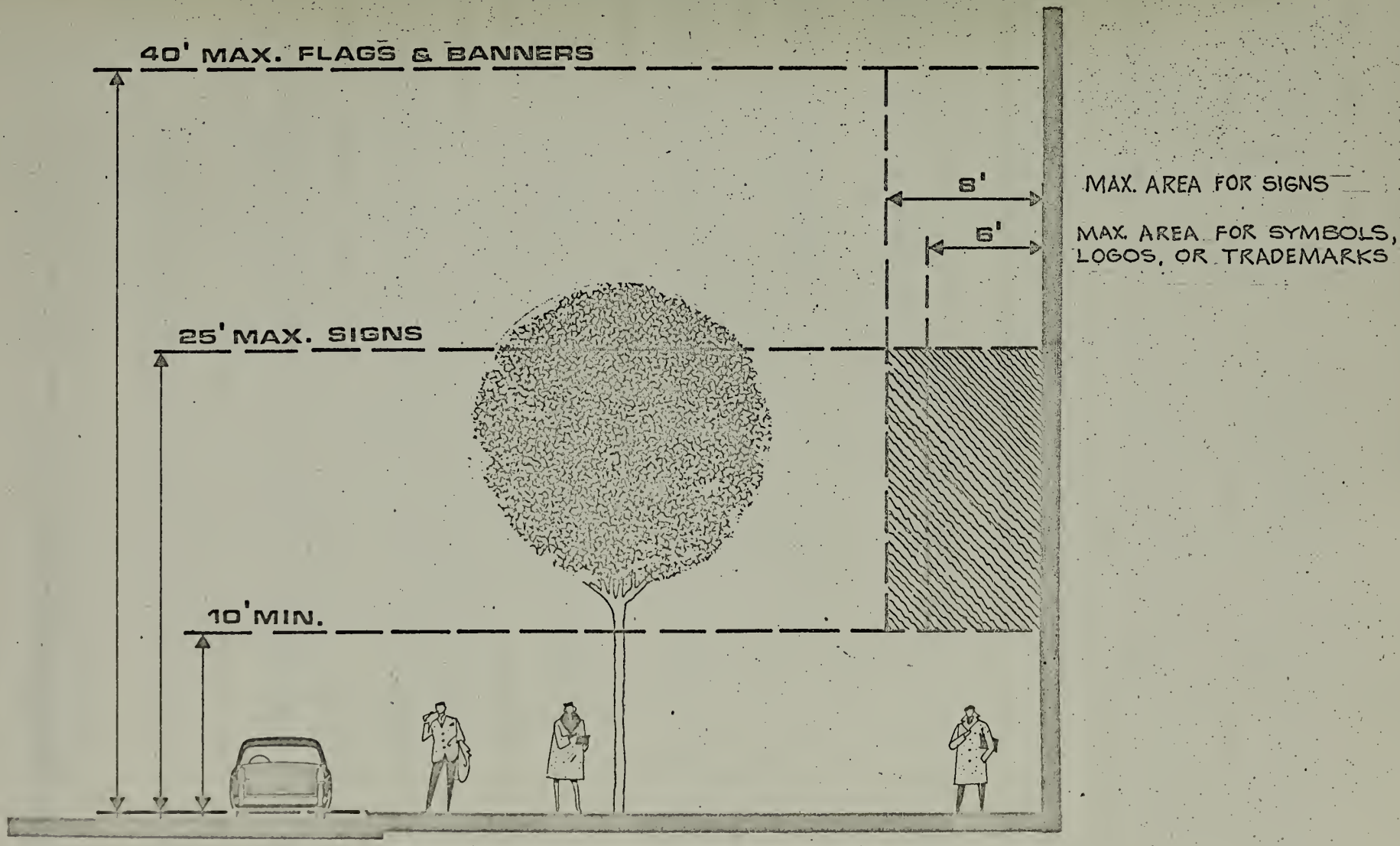
The design intent in District A is to emphasize and encourage the trend toward reserved, dignified signing that has manifested itself in the past ten years, yet to allow for the expression of mercantile individuality. Standard signs would be restricted in color range, if illuminated; must be mounted flush on the building facade; and must be limited in size more so than any other district. It should be noted that much of the present signing would qualify under these controls. To give the district a distinctive character and provide an acceptable opportunity for individual expression and identification, the use of symbols, logos, and trademarks suspended over the sidewalk would be permitted along with the use of flags, banners, and pennants. Because District A is the only district where regular signs must be mounted flush, the special suspended symbolic devices, banners, flags, etc., would be visually more dominant here than any other district. The net result should be an area of distinctive character, reserved without being arid.

District B--Retail

The chaotic subdivision of storefront facades and the wildly diverse sign designs in this area need to be tempered and harmonized to achieve a greater sense of quality and for more effective communication. The intensive retail activity requires more area and more opportunities for signing. To this end, two-thirds more sign area is permitted than in District A and signs are allowed to project over the sidewalk. Rooftop signs on low one- and two-story buildings are also



DISTRICT A (OFFICE)



DISTRICT B (RETAIL)

permitted. The color restriction on illuminated signs would be retained in this district as well, both to create an image of quality and dignity and to set off the unlimited use of color in Powell Plaza and the Hotel/Entertainment areas. The General Design Criteria on storefront facades and the requirement for a frame around all signs will if consistently applied reduce much of the visual clutter that cheapens the image of the Retail area. The permitted use of suspended symbolic devices, flags, and banners, coupled with the restraints imposed, will enable the creation of a visually exciting environment conducive to the "shopping spirit" without the deleterious results that result from much of the present uncoordinated effort.

District C--Powell Plaza

Powell Plaza will serve as the focal point of two activities: (1) during the daytime, it will be the principle center of retail shopping; (2) at night the emphasis shifts to amusement/entertainment. The two uses of the area suggest that the environmental character should change in keeping with the predominant usage: during the daytime shopping cycle the plaza area should be bright with flags, pennants, and flowers, with the surrounding buildings forming a dignified, rich enclosure synonymous with quality, service, and reliability; at night, brilliant illuminated displays would dominate, creating a festive kinetic atmosphere appropriate to entertainment activities. This dual nature can be achieved by requiring that nighttime signing be designed to present a muted appearance during the daytime and mounted on buildings in such a manner as to permit the architectural order to read.

It is desirable that the signing around Powell Plaza be something special in the hierarchy of private signs along Market Street, associated with but differentiated

from the adjacent areas. To achieve this, unusual freedom has been granted to this zone: moving and animated signs are permitted, roof signs are permitted above the 40 foot elevation, no size or color restrictions, exposed decorative lighting and projection techniques are permitted, and it is the only Special District on Market Street where general advertising signs are allowed.

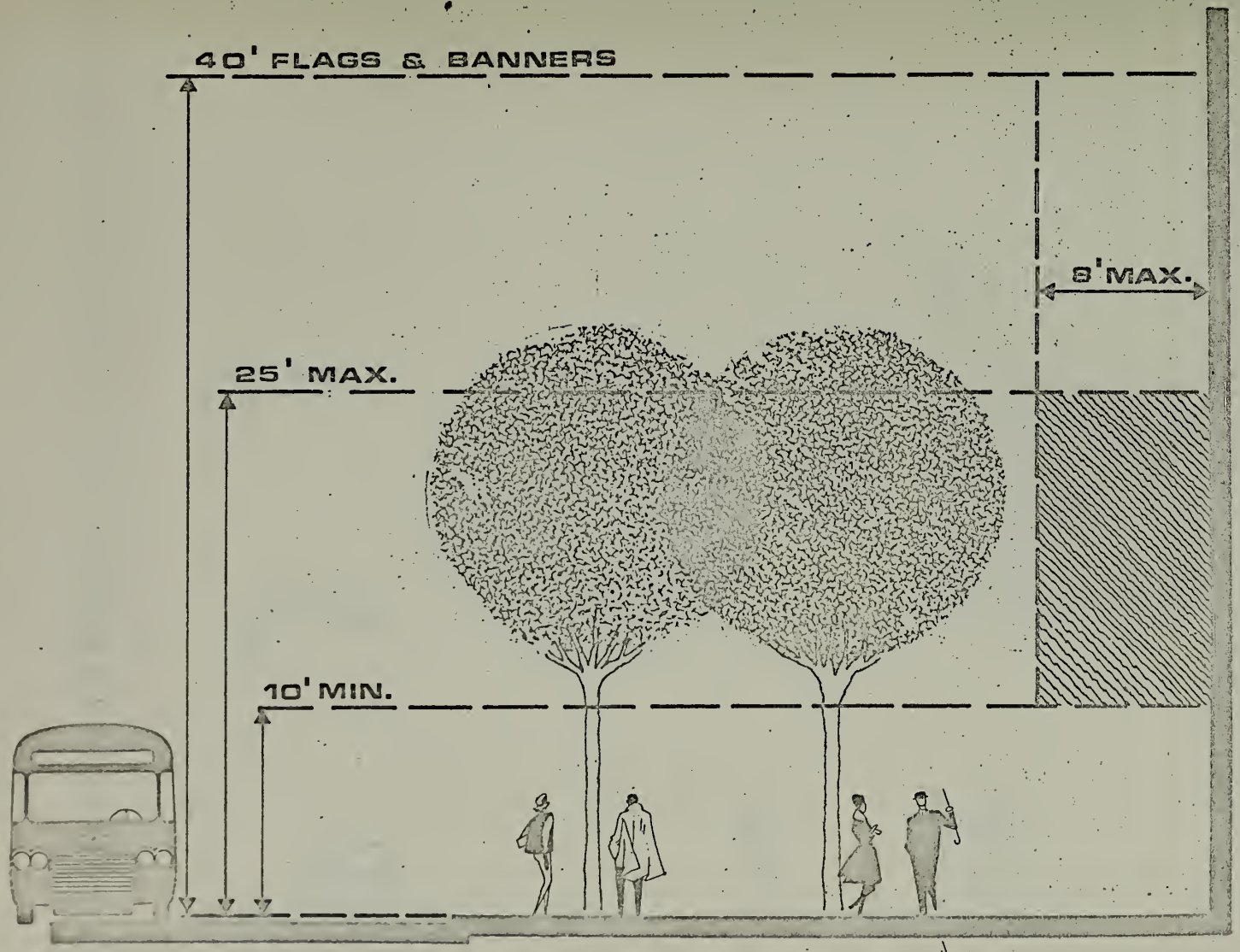
The General Design Criteria imposes a design restraint of particular importance to Powell Plaza, namely: "Decorative lighting, where permitted, must be mounted in such a way as not to disfigure or detract in any way from identified buildings of architectural or historic interest. . ." This principle would also apply to signs in this district.

The design intent would be to outline or cover the whole or large portions of the facades framing the plaza. The designs should be so conceived that they integrate both with each other and with the facades on which they occur for day and night appearance. The signs and decorative illumination should define the plane of the facades, thus projecting signs are prohibited.

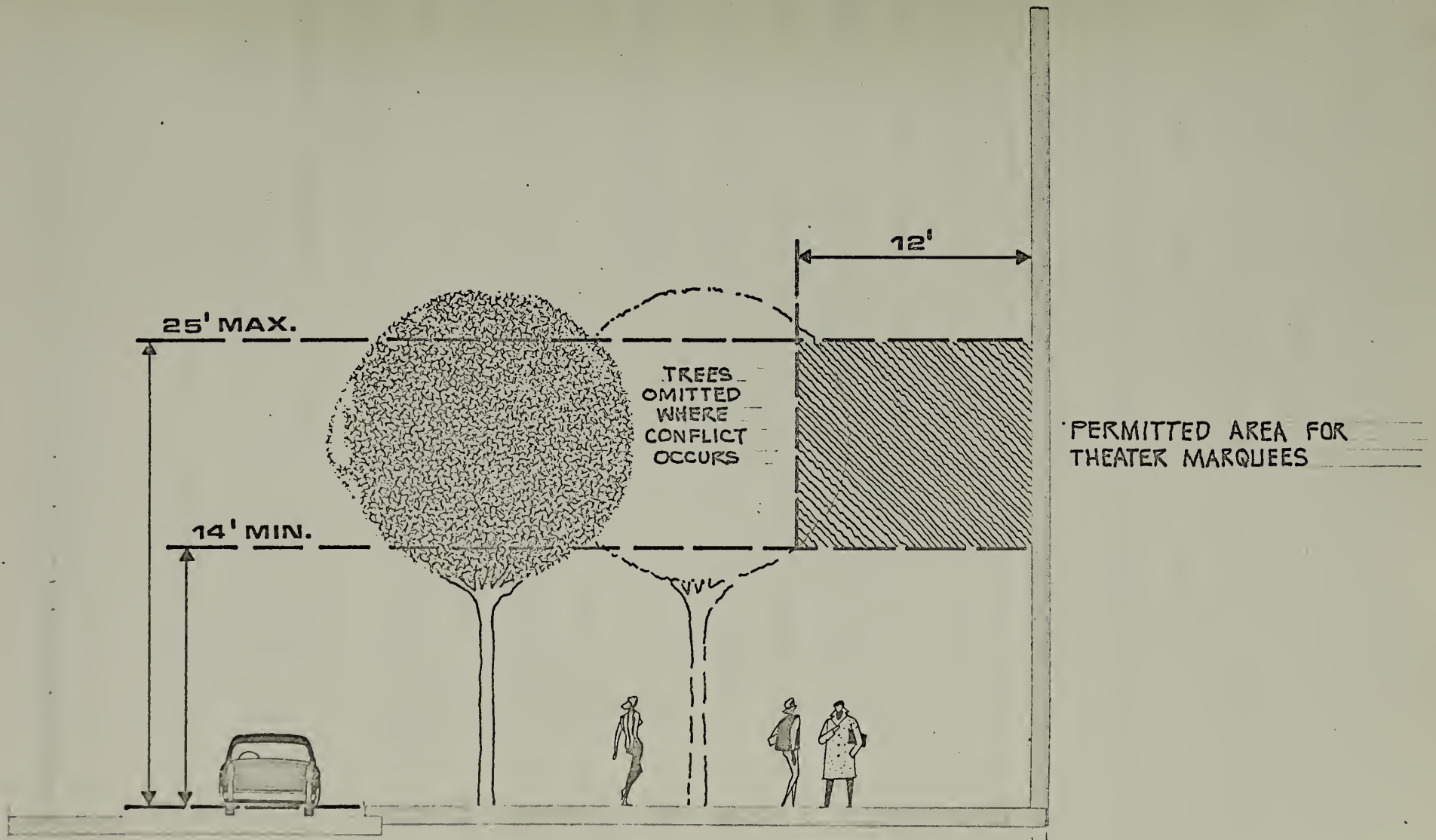
It is hoped that creative techniques would be utilized to achieve a truly spectacular nighttime illumination. The inventive use of metalic or plastic scrim, projection techniques, ultraviolet light are to be encouraged. What is not wanted is the standard billboard appearance. Powell Plaza should not be an imitation of Times Square, but a new expression of a new age.

District D--Hotel/Entertainment

Similar to Powell Plaza, the emphasis in this district shifts from retail to amusement from day to nighttime. The retail generally has a much stronger relation



DISTRICT D ENTERTAINMENT/HOTEL



DISTRICT D ENTERTAINMENT/HOTEL

toward the street population generated by the amusement activities. It is anticipated that this relation would be maintained with an overall upgrading of both the quality and intensity of activity. During the daytime the area must assert itself as an entertainment area yet maintain a compatible relationship to the retail area. At night, however, the area should explode in color and light creating a visually dynamic environment necessary to a vital entertainment area. The proposed controls, therefore, are the same as for the Retail area with the following additional opportunities: decorative lighting is permitted with no area restriction, no color restraints, and theater marquees may extend 12 feet over the sidewalk with a minimum height of 14 feet and a maximum height of 25 feet above the sidewalk. The nighttime display of decorative lighting and color would provide the visual activity needed while signs would be restrained within reasonable limits to fit the daytime scene.

District E--Outer Market

This district is much more auto oriented than the other districts: visibility is more important in signs from automobiles than pedestrians. This implies a different scale of signs. Several office buildings have been developed recently and the success of the Fox Plaza residential development suggests more residential growth in the future.

To permit an appropriate scale of signs no upper height or size limit is placed upon signs. Color of illuminated signs is restricted as are Districts A and B. General advertising signs would not be permitted in view of the possible residential development.

X. PROPOSED SIGN REGULATIONS

	Districts				
	A	B	C	D	E
1. Design review required for all signs and storefront remodeling.	X	X	X	X	X
2. For public safety, design continuity and to prevent projecting sign from obscuring vision the minimum height of bottom of signs--10 feet above sidewalk grade.	X	X	X	X	X
3. For design continuity and an orderly street appearance the maximum height of top of signs--25 feet above sidewalk grade except upward to 40 feet above sidewalk grade.	X	X		X	
4. All signs shall be mounted flush on building facade.	X		X		
5. To prevent conflicts with trees and to insure a more gracious dignified street image signs may project over the sidewalk a maximum of 8 feet, all exposed sides shall be computed for area requirements.		X		X	X
6. To enhance and maintain the special character of this district the area of sign not to exceed 3 square feet per lineal foot of eatablishment frontage.	X				
7. To inhibit wasteful visually disruptive competitive signing and produce a more orderly street image the area of a sign is not to exceed 5 square feet per fineal foot of establishment frontage.		X		X	X
8. Theater marquees permitted extending 12 feet over sidewalk, minimum height of 14 feet and maximum height of 25 feet.				X	
9. No animated signs permitted.	X	X			X
10. Animated signs permitted, animation may be created by moving device totally enclosed within sign, providing no moving part exceeds 50 feet per minute or 5 revolutions per minute, whichever is less.			X	X	
11. Non-illuminated signs not permitte .			X	X	
12. To promote a more dignified street character in these areas exposed neon tubing may not be used in any sign, but shall be concealed by an opaque material or covered by a translucent plastic similar to plexiglass.	X	X			X

Proposed Sign Regulations (cont)

	Districts				
	A	B	C	D	E
13. Exposed decorative lighting and signs in clear neon tubing without backing so designed and mounted as to be relatively invisible during the daytime is permitted, provided it is integrated with the architecture. No area restriction required.			X	X	
14. Rooftop signs not permitted.	X	X		X	X
15. Rooftop signs permitted provided they are flush with the entire building street frontage and commence at the cornice line, are not higher than 8 feet above the cornice, have an overall white or neutral color during the daytime, and are integrated with the architecture of the building.			X		
16. General Advertising Signs as defined in Sec. 602.7 of the San Francisco sign ordinance are not permitted.	X	X		X	X
17. Projection techniques permitted provided the source is concealed.			X		
18. Flags and banners permitted provided not mounted serially, are suspended vertically, are not displayed more than 60 days in any 180 day period, and are in good condition.		X	X	X	
19. Subject matter of signs limited to name and/or symbol of establishment, excepting specialty shops and services which may state nature of goods or service immediately below name in letters not exceeding 8 inches in height and consisting of not more than two words.	X	X			X
20. Symbols, logos, or trademarks may extend over sidewalk a maximum of 6 feet, providing area does not exceed 25 square feet. Device must be suspended by chains from a horizontal arm. Depth of device shall not exceed 6 inches.	X	X			
21. White should be the dominant color of signs. The use of red, orange, and green hues prohibited except for established trademarks or titles.	X	X			X

XI. PUBLIC SIGNS

A. Traffic Signals and Regulatory Signs

Traffic signals are provided for the safety of both motorists and pedestrians. The speed of vehicles requires that traffic signals be easily visible within safe stopping distance. The pedestrian obviously requires a much shorter signal visibility distance than the motorist but in the immediate area of the intersection, he must see it without difficulty. Regulatory traffic signs are primarily for the motorist and generally of little or no concern the pedestrian. Some signs (and signals) are more critical to the motorist than others; a stop sign for example is far more critical than a No Parking sign and should have the dominant position.

Given these critical concerns it is clear the best location for traffic signals and regulatory signs is the outer edge of the sidewalk outside the tree-planting zone. The proposed traffic sign and signal area is a belt four feet wide starting one foot inside the curb-line. This leaves a gap of 1-1/2 feet between the sign area and the outermost row of trees. Within the four foot wide belt a further distinction is suggested: signs and signals of greatest importance would be placed on the street side; signs of lesser importance on the inside edge toward the building line.

Trees would be trimmed so that branching would occur around the 14 foot level--above the height of traffic signals--to eliminate any visibility problems.

At present, No Parking, Bus Stop, Loading Zone, No Turn, and Freeway access signs, etc., have little or no design unity resulting from the practice of different authorities to design and place their own signs with only basic coordination.

At certain particular problem intersections along Market Street signs have accumulated to a point that more harm than good is being done. These are places where perhaps one special sign would work better than confusing multiplication of standard signs. These conditions should be corrected for both public safety and esthetics.

The following actions are recommended:

1. A comprehensive sign location policy for all public signs should be developed governing the placement of individual signs and grouping of signs.
2. All traffic regulatory signs and including Muni Bus Stop signs should be redesigned by a competent graphic designer in a consistent style.
3. A graphics consultant should be retained to advice and assist in the resolution of public signing problems that cannot adequately be handled with standard signs and standard sign locational policy.

The permitted vertical range for the Public Sign Zone is form a minimum height of seven feet to a maximum of 14 feet above the sidewalk. The angle from which traffic signs and signals are normally viewed does not make a vertical separation of public and private signs of practical value, the intervening trees provide sufficient screening in longitudinal views down the street that there should be little or no conflict.

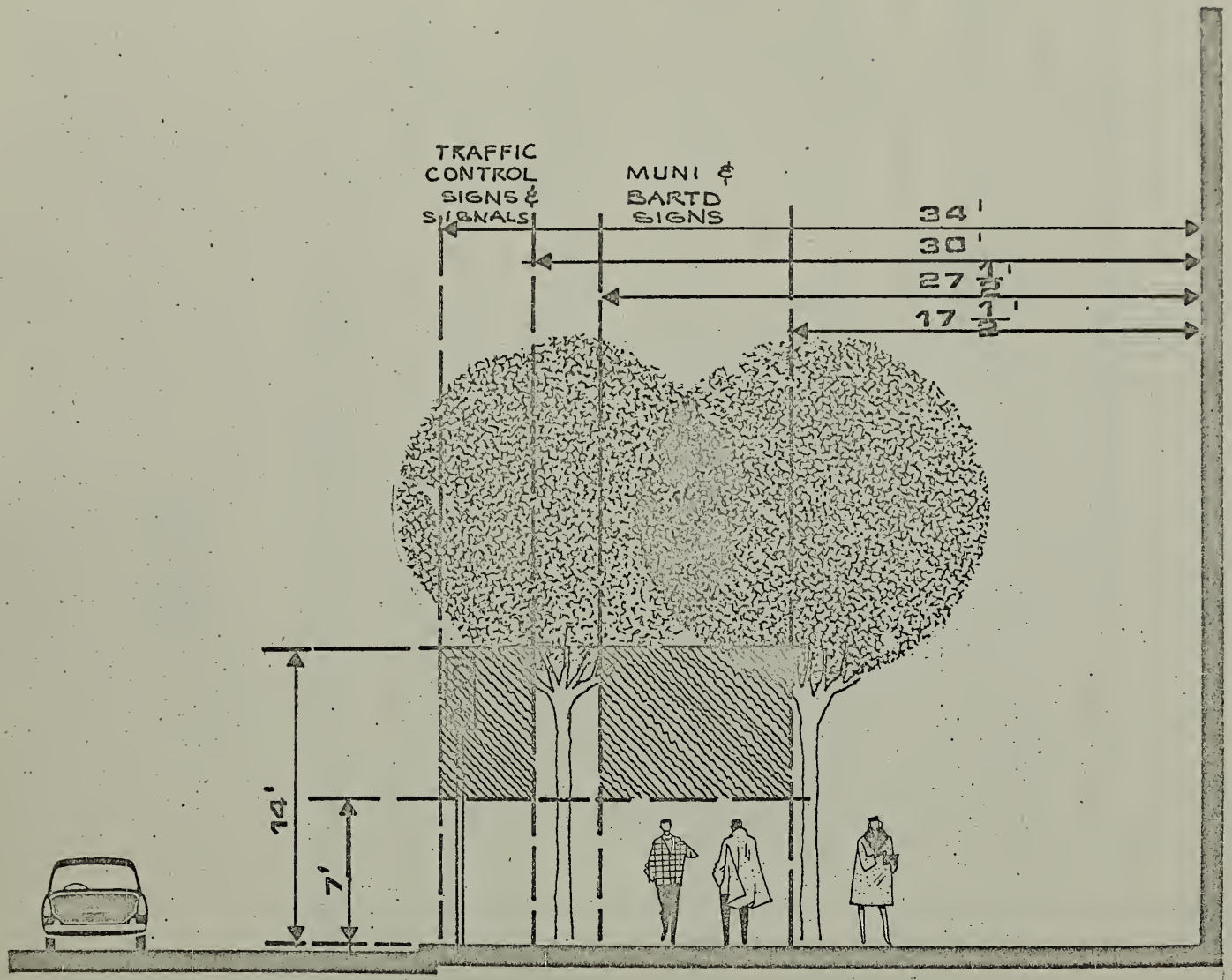
B. MUNI and BARTD Signs

Muni and BARTD signs are primarily for pedestrians, announcing a station entrance or a bus stop. A separate zone from the traffic signing is recommended falling between the double row of trees beginning at 17-1/2 feet from the building line and

ending at 27-1/2 feet. If the sign or symbol is to be narrow and vertical in nature then the sign should be in one half of the area or the other and not on the center line, which would be obscured where single rows of trees occur.

Recommendations:

1. Muni and BARTD subway signs (or symbols) should be so designed that they can either be linked together as a common sign or used separately. A colored light cource is suggested; for example, an illuminated blue sphere for BARTD and an illuminated magenta sphere for Muni.
2. Muni Bus Stops would be announced by bus shelters--the shelter becoming in effect the sign. The shelter would have an illuminated facia with the numbers of bus routs served at each bus stop.



PUBLIC SIGNS ALL DISTRICTS

SECTION VII

LIGHTING

Background

Market Street is presently illuminated by the "Path of Gold" lamp standards, first designed and installed during the first part of the 1900's. In recent years they have been relamped with Mercury Vapor lamps of a blue-white color. This standard constitutes the main existing street lighting for both pedestrians and vehicles.

Upon review and analysis, it is recommended that these "Path of Gold" standards be retained as the major lighting fixture for Market Street. The high quality of their design is obtainable at only an extremely high cost today. The standards have been designed in scale with the broad proportions of the street and are unique to both the city and the world. Historically, they symbolize the great rebuilding of the city after the earthquake and fire of 1906, as was celebrated in the great exposition of 1912. In both style and character, they reflect the proud past of the city.

General Recommendations

1. Color Coding

   A. The present Market Street "Path of Gold" standards should be retained and equipped with 400 watt Lucalox Lamps. When fully completed, the street will have a golden yellow glow with twice the present intensity.

B. Each street tree should be illuminated by two self-ballasted mercury vapor lamps directed upward. This will provide a lively light green glow. In addition, light will be reflected down to the sidewalk.

C. The bus stops should have continuous plastic facia bands which will contain graphics and flourescent light. We recommend that these glow amber.

D. The crosswalks should be illuminated with bands of white light.

E. The intersecting streets should be illuminated with either green or color corrected mercury vapor lamps to provide the maximum contrast between the east-west and north-south axis of the streets. This will provide a dramatic and logical new ambience to Market Street and could be extended through the entire city if desired.

2. Glitter

A. Pedestrian-scaled, secondary fixtures should be installed at selected places along the street. The fixtures should be about 25 feet on center and located between the trees. This will give focus to special blocks of particular architectural merit, or provide illumination where secondary ambience is lacking from signs or other sources.

B. Illumination in plazas should also be of this type, utilizing larger standards with exposed incandescent sources.

Specific Recommendations

1. BART Entrances

It is recommended that the BART entrances be lighted by the illuminated

graphics. The color should be other than that used for the bus shelters.

2. Path of Gold Standards:

The reflector and refractor systems should be reconstructed to permit a greater efficiency as well as a lower surface brightness when the higher intensity Lucalux sources are installed. In addition, the poles should be repainted with silicone paint of color selected by the architects. The use of this paint could impart a bronze characteristic to the standards.

3. Illuminated Graphics:

When a final graphic program is adopted, a study should be made to include illumination that would harmonize with the color code previously mentioned in this report.

4. Secondary Sources:

It is recommended that buses be equipped with self-illuminating advertising panels. These provide an interesting movement of light as well as a bright glow at a low level which can be very exciting.

5. Civic Center:

All public buildings selected by the architects should be floodlighted for identification and to provide a mid center force of interest to Market Street.

6. Individual Building Upgrading:

It is recommended that a program be initiated that would stimulate the individual store and building owner to upgrade show window and sign lighting. A book of useful hints might be prepared that would show how to create effects that would raise the quality level of these highly dominant secondary sources.

7. Conclusion:

These recommendations are based on sound engineering principals, utilizing gas discharge sources which have high efficiency and ease of maintenance. The exception is the pedestrian scaled standards and plaza fixtures. It is recommended that these burn below rated voltage to increase their life.

Since the effects depend on subtle color combinations and intensity interrelations, we feel that a report and drawings cannot adequately convey the results to all interested persons. Therefore it is urged that a one-block test be installed for evaluation.

SECTION VIII

HISTORICAL BUILDINGS

Buildings on Market Street are elements in an amalgam of San Francisco's rich past and its vital present. Each year the balance between the old and the new elements is altered as older buildings are razed to make way for new structures or for interim use as parking lots. To some, the disappearance of an older building is viewed as an instance of progress. To them, new buildings symbolize vitality; new parking spaces mean more customers. Others, however, are concerned that the disappearance of older buildings results in a loss of historical continuity and visual pleasure.

To achieve a balance between the old and the new is not easy. The difficulty arises when such measurable criteria as the ability to serve new functions, the costs of maintenance, and diminishing economic return are matched against the more intangible values of esthetic merit, historical associations, and contribution to the urban landscape.

Primary responsibility for landmarks preservation in San Francisco has been assigned to the City Planning Commission under Article 10 of the City Planning Code. Administration of this responsibility is threefold: (a) identification and designation of landmarks; (b) protection of landmarks from improper remodeling of exterior facades; (c) imposition of a moratorium on demolition to allow time for the community at large to make efforts to save the landmark. The Planning Department and the Planning Commission are advised on matters pertaining to historical preservation by the Landmarks Preservation Advisory Board.

Buildings on, or just off, Market Street worthy of consideration fall into two groups.

Group One

Historical and/or superlative architectural examples for which an all out effort must be made to preserve:

1. Ferry Building Tower
   The Embarcadero
2. Southern Pacific Building
   65 Market Street
3. Crocker Citizens Building
   Sansome and Sutter
4. Hobart Building
   589-92 Market Street
5. Crocker Anglo Bank
   Montgomery and Post
6. Sheraton Palace Hotel
   651-65 Market Street

7. Citizens Federal Savings Building
700-06 Market Street

8. Wells Fargo Building
744 Market Street

9. Savings Union Trust Building
Grant and O'Farrell

10. Humbolt Bank Building
783-85 Market Street

11. The Emporium
835-65 Market Street

12. Flood Building
870-93 Market Street

13. Bank of American Building
Powell and Eddy

14. Hibernia Bank
Jones and McAllister

15. Federal Building
Leavenworth and Fulton

Group Two

Superior buildings, historically or architecturally worthy of saving for an indefinite period and which should be replaced only by outstanding buildings or complexes, if at all.

1. Matson Building
215 Market Street

2. Pacific Gas & Electric Building
245 Market Street

3. Underwood Building
525-6 Market Street

4. Balboa Building
589-99 Market Street

5. Hearst Building
691-9 Market Street

6. Phelan Building
786 Market Street

7. Golden Gate Theater Building
Golden Gate Ave. and Taylor

8. Masonic Temple
Van Ness and Oak Street

In virtually all instances, due to the nature and location of these buildings, reasonable uses or purposes of economic value will have to be found for them before their preservation can be assured. This may take the form of higher and better use through tasteful remodelling, use as an entrance to a new larger building, preservation in lieu of a comparable open space or plaza, as a prestige building of economic value because of its historical and/or esthetic character, or by transfer of development rights as proposed in the San Francisco Downtown Zoning Study, C-3 and Adjacent Districts. In this latter case, there would be no limit as to the amount of surplus floor area transferable. This would tend to encourage the retention of landmarks by realization at a portion of the development potential at the site through sale to adjacent properties. Active seeking of economic advantage, zoning and similar legislation recognizing and highlighting the differences of occupancy and uses along the street, and a

sympathetic and alert community can maintain on Market Street a contrast between old and new that is both piquant and beautiful; qualities which are magnified by the random, accidental nature of the combination. And where the difference in age is highlighted by a difference in occupancy and use, the structures form a garden of stone, brick and glass giving a certain visual truth to the airy metaphor in which a street is described as an organic whole with a life of its own.

It is recommended that the above lists of buildings be submitted to the Landmarks Preservation Advisory Board for consideration and that demonstration studies be made illustrating development potential of areas incorporating historical buildings.

SECTION IX

THE ACTION PLAN

The principal objective of the Market Street Design Study is the physical reconstruction of a new Market Street. The completion of the schematic design plan is the first step of this improvement process. The plan clearly establishes the City's commitment for the future development of the street, and provides the basis for subsequent improvement actions.

Many public actions are already under BARTD is presently constructing stations along Market Street and the City has established public policies governing sidewalk widths for the new street when the BARTD system is operational. A Federal grant of approximately twenty million dollars has been approved for the construction of plazas at the Powell and Civic Center subway stations and for extensions of the station mezzanines.

However, the critical phase of plan implementation is at hand; funds to finance the reconstruction of the Street must be obtained, particularly in time to coordinate with the BARTD timetable. Also, public actions concerning signs, building bulk, and preservation of historical buildings are now required.

First Stage Actions

The reconstruction of Market Street and the construction of the two new plazas at Powell and Civic Center Stations is the first step. This requires public approval of the Schematic Design Plan and the following subsequent public actions.

1. Closing of portions of the following streets adjacent to Market Street and their conversion into pedestrian areas: California, Bush, Ecker, Annie, Powell, Eddy, Leavenworth, and Fulton;

2. Widening of Anna Lane Street from Eddy to Ellis Streets;
3. Providing on-site service facilities for buildings on Market Street; prohibiting vehicular access across sidewalk areas of Market Street and restricting access to streets other than Market Street;
4. Restricting all transit vehicles to those not requiring overhead trolley wires;
5. Prohibiting protrusion of subway skylights above the sidewalk surface;
6. Selecting a high-branched and well-formed tree such as a Sycamore (Platanus acerifolia) for street landscaping.

Subsequent Actions

Upon approval of the Schematic Design Plan, further studies should be initiated leading to public actions in the following areas:

1. Zoning Provisions: Adoption of the Downtown Zoning Study with its controls over building bulk, height, and siting and its bonus allocations for amenities as approved by the City Planning Commission; further studies should be made to refine the C-3 recommendations to the particular requirements of Market Street.
2. Sign Controls: Designation of special sign districts along Market Street, general sign criteria, and design review.
3. Historic Buildings: Preservation of buildings of historic or architectural merit; the recently adopted Historic Preservation Ordinance offers a valuable tool to implement this goal;
4. Design Review Process: Review and approval of all building permits for new buildings, plazas, and remodeling, and for signs along Market Street and in the plazas.

5. Service and Delivery: Analysis of service and delivery problems, particularly after completion of BARTD subway construction, and new joint public-private efforts to resolve Downtown service and delivery problems.

6. Municipal Code Revisions: Provision for sidewalk cafes, private uses of sidewalk space, building entrances under arcades, and removal of sidewalk elevators.

7. Works of Art: Embellishment and enrichment of the new sidewalks and plazas with works of art, such as fountains, sculpture, murals, and statuary through public subscription.

8. Building Renovation: Initiating a program to improve the appearance of Market Street properties to complement the new Street environment.

9. Sidewalk Activities: promoting new uses of sidewalk spaces, such as kiosks, outdoor cafes, and other similar activities.

Long Range Actions

For the ultimate improvement of Market Street, many actions are required that go beyond the scope of the first-stage Schematic Design Plan for which studies should be initiated in the following areas:

1. Circulation: Extension of the pedestrian, transit, automobile, and service circulation recommendations of the first-stage plan; in particular, new modes of transportation in the Downtown core area should be studied, as well as the location of terminal facilities, including those for the West Bay Rapid Transit system.

2. Special Area Studies: Formulation of urban design plans for the following areas: the Civic Center, the Powell Mall, the VanNess Avenue Station, the Ferry Park and Embarcadero Plaza and Upper Market Street.

3. Transit: Modernization of the Municipal Railway facilities along Market Street, including specially designed transit vehicles, an improved shoppers' shuttle and redesigned route signs.

4. Renewal: Completion of current projects of the Yerba Buena Center and the Embarcadero Center portion of the Golden Gateway Project; additional projects would include the areas surrounding the new public plazas at the Civic Center and Powell Stations.

5. Seasonal Activities: Promotion of a program of seasonal activities, such as street parades and decorations, seasonal festivities, holiday decorations, special New Year's celebrations, and other events.

FINANCING

The reconstruction of Market Street will entail a complex program of financing in which many governmental agencies will participate. Privately-owned interests having utilities, buildings, or plazas along the Street also will be involved in the implementation of the Schematic Design Plan.

Existing Market Street Programs

Numerous projects for the improvement of Market Street are either already under way or funding for them is available. The City has appropriated funds for the Ferry Park and Embarcadero Plaza and construction in imminent. The Crocker Plaza, with its direct access to the Montgomery Street Station, will be provided by private interests. Yerba Buena Center, with its pedestrian break-through opposite Grant Avenue and its new sports-convention complex, is in its final development phase using Federal grant and City-matching funds. The extensions of Fifth and Seventh Streets are funded from the City's share of the

State Gas Tas and Road Fund.

A twenty million dollar Federal grant has been awarded for the extension of the station mezzanines and the provision of plaza entrances at the Powell and Civic Center Stations. BARTD is obligated to provide reconstruction funds equal to the amount necessary to restore the surface of Market Street to its original condition.

The Capital Improvement Program

The plan for the design of Market Street is composed of many elements. New sidewalks, curbs, gutters, catch basins, and street planting must be provided; lamp standards, fire hydrants, traffic signals, and police and fire alarm systems must be relocated. Similar projects are part of the City's annual Capital Improvement Program which is scheduled over a six-year period. The Program is funded from ad valorem taxes, approved bonds, revenues, State Gas and Road Fund receipts and other federal and State subventions.

The scope of the Market Street reconstruction project and the heavy demands already placed on the Capital Improvement Program indicate that whatever total of non-bond funds may be made available, they will be insufficient to complete the design plan for Market Street. Thus, a general obligation bond issue to accomplish the required work appears to be needed in 1968.

Potential Funds

Some elements of the plan, such as the bus shelters and signs for the Municipal Railway, may qualify for funds under various Federal Demonstration programs.

Equally so, the sidewalk materials, trees, and street furniture may qualify for partial grant assistance under the Federal Urban Beautification and Open-Space programs.

Recommended Public Financing Actions

It is obvious that current funds are insufficient to finance the cost of the entire design plan for Market Street. A detailed investigation of all alternate financing possibilities must be undertaken immediately by the City. As noted, a general obligation bond issue appears to be the most feasible source. The scope of such a bond issue and its probably 1968 date of submission must be considered immediately by the City. However, final policy decisions rest with the Mayor and the Board of Supervisors. Other local means of financing, such as a tax assessment district, may also be applicable, and must be studied at this time. The final financing plan must be determined no later than during the Preliminary Plan stage.

SECTION X

COST ESTIMATES

Introduction

The cost estimates are based upon the outline specifications which are similarly described and can be cross-referenced. In each case one typical material was selected, and estimated; alternate materials will affect the costs listed here. Items that were not included in the estimate are also noted as such in the outline specifications.

In general the utility relocation costs have been separated from the general construction costs. The utility costs are based upon a separate utility Relocation Survey, which is summarized in Section 6.

Cost estimate does not include any preparation of subsidewalk basements for tree planting.

Cost estimates do not include costs for Design and Engineering services.

The work area is the right-of-way of Market Street from the Ferry Park to the Freeway Overpass.

I. MARKET STREET RECONSTRUCTION

A. ESTIMATE BY TYPE OF WORK

1. General Construction (does not include design)

Demolition	$ 2,478,000
Sidewalks	2,520,000
Paving	2,295,000
Electrical-Illumination	555,000
Landscape	1,397,000
Street Furniture	208,000
Street Structures	219,000
Surface Utilities and Equipment	2,217,000
Subtotal (street only)	$11,889,000
Powell Mall	242,000
Fulton Mall	448,000
	$12,519,000

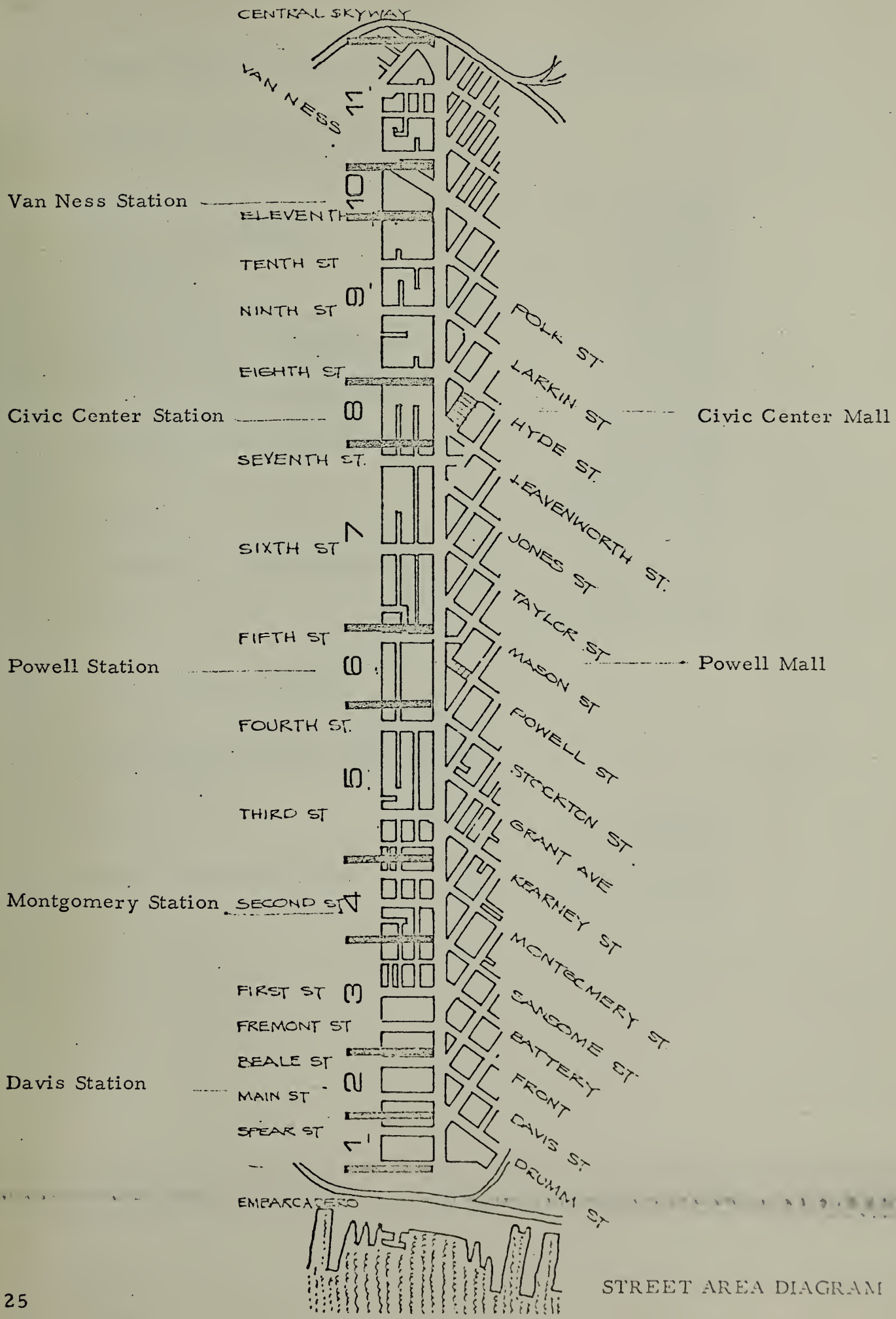
2. Subsurface Utility Relocation (Includes engineering)
Telephone, Telegraph, Power, Gas, Steam, Water, Department of Electricity

Subtotal	5,800,000
TOTAL	$18,319,000

B. ESTIMATE BY STREET AREAS

Area	General Construction	Utility Relocation	Total
1	$ 564,000	$ 711,500	$ 1,275,500
2	644,000	711,500	1,355,500
3	1,288,000	711,500	1,999,500
4	795,000	97,000	892,000
5	2,004,000	1,934,000	3,938,500
6	737,000	108,000	845,000
7	2,313,000	1,424,000	3,737,000
8	517,000	94,000	611,000
9	1,531,000	unknown	1,531,000
10	298,000	unknown	298,000
11	1,199,000	unknown	1,199,000
12	448,000	unknown	448,000
13	242,000	unknown	242,000
	$12,519,000	$ 5,800,000	$18,319,000

Note: refer to street area diagram.



STREET AREA DIAGRAM

II. POWELL STATION PLAZA AND FIFTH STREET EXTENSION

A. GENERAL CONSTRUCTION

Demolition	$ 5,000.00
Paving, Street Level	63,000.00
Electrical Illumination	20,000.00
Landscape	13,000.00
Street Furniture	42,000.00
Kiosks and Bus Shelters	18,000.00
Surface Utilities and Equipment	70,000.00
Depressed Plaza Excavation	50,000.00
Depressed Plaza Construction	176,000.00
Depressed Plaza Finishes	374,000.00
Depressed Plaza Enclosed Areas	39,000.00
Escalators	200,000.00
Subtotal	$1,070,000.00
Contingency, Profit, Escalation	490,000.00
Total	$1,560,000.00

B. UTILITY RELOCATION

Telephone, Telegraph, Power, Gas, Storm Drainage, Water, Department of Electricity:	
Subtotal	$ 30,000.00
TOTAL CONSTRUCTION	$1,590,000.00

III. CIVIC CENTER STATION PLAZA

A. GENERAL CONSTRUCTION WORK

Demolition and Filling	$ 130,000.00
Paving, Street Level	243,000.00
Electrical - Illumination	20,000.00
Landscape	81,000.00
Street Furniture	36,000.00
Kiosks	21,000.00
Surface Utilities and Equipment	63,300.00
Lower Level Plaza Excavation	44,000.00
Lower Level Plaza Construction	142,000.00
Lower Level Plaza Finished	66,000.00
Escalator	40,000.00
Subtotal	$ 886,300.00
Contingency, Profit, Escalation	333,000.00
Sculpture	250,000.00
Total	$1,469,300.00
UTILITY RELOCATION	Unknown

B. FEDERAL APPLICATION LAND ACQUISITION BUDGET

Land Acquisition	$1,670,000.00
Administration	92,000.00
Relocation Administration	4,000.00
	$1,766,000.00

IV. SEVENTH STREET EXTENSION

Demolition and Filling	$ 46,000.00
Paving	64,000.00
Landscape	20,000.00
Subtotal	$ 135,000.00
Contingency, Profit, Escalation	59,000.00
TOTAL CONSTRUCTION	$ 194,000.00

V. ALTERNATIVE MATERIALS

Alternative materials are listed to indicate the range of costs, depending upon material selection. The cost estimates are the amount saved by using alternate materials to the materials proposed in the outline specifications.

A. MARKET STREET AND MALLS

	Specified	Alternate	Save
1. Loading Zones Cross Walks Median Strip	brick	concrete	$ 252,000
2. Curbs and gutters	granite and brick	concrete	$ 224,000
3. Sidewalks	brick	concrete (exp. agg. and/or patterns)	$1,151,000
			$1,627,000

POWELL MALL

1. Walks	brick	concrete (exp. agg. and/or patterns)	$ 39,000

FULTON MALL

1. Walks	brick	concrete	$ 55,000
2. Curbs and gutters	granite and brick	concrete	$ 7,000
			$ 101,000
	Total Saving.		$1,728,000

B. POWELL PLAZA

1. Walls	granite	bush hammered concrete	$ 120,000
2. Treads	granite	precast concrete	$ 61,000.
3. Paving (low level)	granite	concrete	$ 71,000
4. Paving	brick	concrete	$ 18,000
5. Curbs and gutters	granite and brick	concrete	$ 4,000
	Total Saving		$ 274,000

C. CIVIC CENTER STATION PLAZA

	Specified	Alternate	Save
1. Walls	granite	bushhammered concrete	$ 25,000
2. Paving	brick -some granite-	concrete	$ 233,000
	Total Saving		$ 248,000

APPENDIX

DESCRIPTION OF DRAWINGS	SECTION A
OUTLINE SPECIFICATIONS	SECTION B
UTILITY RELOCATION SURVEY	SECTION C

APPENDIX A

DESCRIPTION OF SCHEMATIC DESIGN DRAWINGS

The following describes the elements of the Design Plan that are depicted by the drawings. These are the elements that need to be approved as the important parts of the Schematic Design for Market Street and the Plazas. Each drawing is described in terms of its basic principals of design, the general character of the design, and what approval of the drawing entails. Each description should be considered in direct reference to each drawing, and within the context of all the Documents of the Schematic Design.

I. Schematic Design Plan for Market Street

A. Drawing: Schematic Street Design Plan, Scale 1" = 50'

This plan illustrates the overall character of the Schematic Design for the street and plazas.

Principals: Market Street is designed to be the "great street" of the City, lined with trees and paved with wide sidewalks that are appropriate to the grand scale of the street. In one sense it is a formal, ceremonial way, connecting the major public plazas of Ferry Park and Civic Center. In another sense, it is a linear park, linking together the downtown pedestrian systems and punctuated periodically with small plazas to create centers of activity and clusters of people.

Functionally the street is designed to reflect its major roles in the circulation system of the City. It varies from a four lane pedestrian-transit oriented street, with wide sidewalks in the core to a transition zone as a six lane automotive street, and beyond Civic Center, it becomes a full eight-lane arterial roadway.

Physically, the street passes through and is designed to link together the various downtown functional areas. One of the major elements is the continuous but varied tree planting of double rows of trees in the east and west zones of office building and Hotel/Entertainment, where it is most desirable to strengthen the spatial and aesthetic qualitites of the street; and a single row in the central area - the retail zone where for good display window visibility and good pedestrian circulation are desirable. Beyond the Civic Center Station, the trees are in single rows.

The pedestrian environment is defined by a rich pattern of warmly colored paving, extending across the intersections at the crosswalks to unite the street into a continuous spine for the downtown pedestrian system. Upon this paving and under the trees are set the elements of street furniture and equipment grouped in service clusters. The design provides for a highly active, dynamic, people-oriented environment.

Approvals: Approval of this design establishes the design concept of the ceremonial way and the functional way, the scale and hierachy of open spaces, the general tree massing and configuration, and the general concepts of the pedestrian environment in design terms of overall pattern of the sidewalk material, the unit paver extending through the crosswalks.

B. Drawing: Schematic Street Surface Design and Street Furniture Plan, Scale 1" = 50'

This plan depicts the design of the street surface materials, and establishes the locational plan for the various elements of street furniture.

Principals: The sidewalks are designed as a continuous pedestrian domain, with the surfaces and street elements treated consistently throughout the length of the street. This creates a distinctive tone and character of street that unites the immense variety of buildings, open spaces, and activities along its edges. For example, the bus shelters occur rhythmically at each bus stop, the design of the subway entranceways and contiguous sidewalk areas is uniform and benches, trash containers, and drinking fountains occur in similar relationships throughout the length of the street. News vending machines and kiosks are located similarly at the various street intersections.

The design of the sidewalks reflects the variety of design responses to the various needs of each of the areas of downtown. These sub-environments vary in terms of the detail paving patterns, the number and relationship of elements of furniture and equipment and in the overall sense of the character of each zone. This variety is expressed in terms of sidewalk facilities, special lighting, special kiosks; and activity gives Market Street the change in pace and intensity that in human terms will insure an ever-changing sense of vitality.

Approvals: Approval of this design establishes, in addition to the above overall design character, the tree planting plan, and the street equipment location plan. Surface materials are established in general terms of area, extent of pattern. The location is established for the following items of street furniture: benches, drinking fountains, newspaper vending machines, news kiosks, vending kiosks, display kiosks, information kiosks, bus shelters, trash receptacles, and flagpoles.

C. Drawing: Schematic Functional and Street Equipment Plan, Scale 1" = 50'

This plan establishes the functional characteristics of the street and the locational plans for the elements of street equipment.

Principals: Functionally, the design of the street reflects the varying roles of the street in the City's circulation system. Between Ferry Park and the Civic Center, it is designed as a pedestrian-transit oriented street with four traffic lanes and broad sidewalks, which vary in size from a typical 35 foot width to 26 feet for service bays and right turns. Additional lanes for right turns are provided at certain intersections. All service and delivery is accommodated by pull-out bays, with a minimum of one per block. Between Eighth Street and Van Ness Avenue, it is a transitional, automotive-oriented street with six lanes of moving traffic and 26 foot sidewalks. There are no special provisions for right-turn lanes or pull-out bays. Beyond Van Ness, it becomes a full eight lane arterial roadway. Throughout the length of the street busses load and unload at the curb for maximum transit efficiency and flow of people.

The street equipment is located and grouped according to functional requirements. In the design of the intersections, pedestrian safety and convenience were the governing locational criteria for the placement of the vehicular signals, the pedestrian signals, the lamp standards, and trees. Each intersection is treated similarly for the length of the street.

In the illumination plan, the path-of-gold lamp street lamps are uniformly spaced and relamped to provide for the vehicular lighting, and the trees are consistently lighted for the overall pedestrian lighting. Supplementary, special lighting is not indicated.

Approval: Approval of this plan establishes the functional, operational design of the street, in terms of curb assignment, right hand vehicular turning lanes, service and delivery bays, crosswalk design and location, street closures, lane designations, illumination and intersection design. Approval establishes locational plans for the following items of street equipment: municipal railway bus stops, vehicular signals, pedestrian signals, street signs, l.p. and h.p. fire hydrants, police and fire call boxes, post office drop and storage boxes, street and tree lighting.

D. Prototype Blocks

Drawings: 1) Financial Area - Detail Street Design Sketch A, Scale 1" = 8'
2) Retail Area - Detail Street Design Sketch B, Scale 1" = 8'

These plans establish, at a larger scale, the detail for development of prototypical blocks in the Financial and Commercial areas.

Principals: In the design of the pedestrian environment, the sidewalk is composed of three distinct zones: a high movement zone adjacent to the buildings for entrances and pedestrian flow, a sidewalk services zone between the trees for all street equipment and furniture, and a high movement zone at the curb for bus loading and pedestrian flow. These zones create the broad, overall organizing design concept and framework for the detail design of the street.

Within the organizing design framework, the design of this service zone reflects the variety of character and life of the various activity areas it passes through. In the Financial Area, the design of the sidewalk service zone, between double rows of trees, reflects the pace and desired amenities of the office worker, noon-time stroller, or corporate visitor, emphasizing the clustering of benches, news kiosks, fountains, special planting, and hopefully, works of art. In the Retail Commercial area, the design provides for the flow of crowds of shoppers, business people and visitors. Here the design of the sidewalk service area, under a single row of trees, is more open, with emphasis upon the grouping of movable furniture, flagpoles, display cases, and flower and news kiosks.

Approval: Approval of these drawings establishes the design character on the detail level of typical blocks and intersections of the street, in terms of location and design of paving materials and patterns, curbs, gutters, center roadway markings, drainage, catch basins, crosswalks, lane indicators, street equipment, street furniture, subway entranceways and line vents.

E. Street Sections

Drawings: 1) Schematic Street Section A, Scale 1" = 4'
2) Schematic Street Section B, Scale 1" = 4'
3) Schematic Street Section C, Scale 1" = 4'

These sections establish the three-dimensional character of the development of the street, and the transverse locational relationships of the various elements.

Principals: The street tree planting design creates the major continuous but varying three-dimensional design element of the street. The trees are all of a kind, and planted directly in the ground. They exist in two basic configurations: double rows in the Financial and Hotel/Entertainment areas (with offset single rows in the right turn lanes and service bay areas) and centered single rows in the Retail Commercial area and the area adjacent to Ferry Park. They are trimmed for general shape and are high branching for visibility of stores and vehicular signs and signals. The lamp posts form a regular design statement, centered on the tree rows and rising clear above the treetops. The trees are also uplighted for night illumination.

Approval: Approval of this design establishes the general three-dimensional character of the street. In particular, it establishes for the various zones of the street the transverse locational relationships of tree planting, lamp standards, subway entranceways, lane widths, service bay provisions, and detail tree spacing, shapes, sizes, and general spread dimensions.

F. Street Equipment and Furniture
Drawings: A set of five drawings at various scales.

These designs establish the general character and prototypical design for the street equipment and furniture.

Principals: The Street Equipment and Furniture is designed as a "family" of design forms from which the various individual items are composed; to order and discipline the diverse individual elements. For the Street Equipment this is accomplished by establishing modular heights and locations and standard mounting poles, or bases or complete redesign. Some equipment, such as mail boxes, are recommended to be retained without design change. For the street furniture all are specially designed, each piece is part of an overall street furniture system, particularly designed to match the scale of the street and to harmonize with the existing lamp standards.

Approval: Approval of these designs will establish the general character of the overall design, detailing and materials of the following items of street equipment: street sign, sign pole, police call box, fire call box, fire alarm, traffic control box and public telephone. It will establish the same for the following items of street furniture: flagpole base, supplementary lighting fixture, display case, kiosk, bus shelter, bench with back, bench without back, tree guard and lighting fixtures, trash receptacle, drinking fountain, newspaper vending machine, and subway identification sign.

II. Powell Station Plaza Schematic Design Plan.

Drawings:

1) Schematic Plaza Plan, Scale 1" = 16'

2) Schematic Mezzanine Plan, Scale 1" = 30'

3) Schematic Section A, Scale 1" = 8'

4) Schematic Section B, Scale 1" = 8'

These drawings define the overall character of the functional and spatial design for the development of the Powell Station Plaza area.

Principles:

Within the context of City form, Powell Plaza provides a spatial focus on Market Street, between the major plazas of Civic Center and Ferry Park. Its design emphasizes its function as a major City "Gateway" or entrance to the Retail Commercial area by first the location of a large lower level plaza as the major transition to the street level, and secondly in the design of a broad expanse of terraced steps, inviting and gracious in scale to flow to the sidewalk above.

Functionally, the plaza is designed to disperse the flow of large numbers of people smoothly and efficiently. In particular, the extension of the lower level of the plaza via a concourse lined with shops under the Fifth Street extension to a western plaza. The cable car turnaround is also relocated to ease the congestion on Powell Street, as well as for the design purpose to provide an integral activity focus for the new plaza area.

The Plaza is designed to be a vital, active, and humanly alive place with the coming and going of people throughout the day and evening. Seasonal events such as fashion shows, concerts, and fund raising affairs could be held utilizing the multi-purpose potentialities of the amphitheater-style steps. The lower level of shops will insure high activity at that level.

The Plaza is to be finished with high quality surface materials, benches, kiosks, planting, and other items of street furniture and equipment. From large scaled flagpoles will fly bright flags and banners of seasonal or symbolic importance. Movable planting, reflecting the change of seasons is placed on the stairs in continued variations, providing masses of color and natural plant forms against the stone steps and walls.

It is recommended as part of the plaza design that the Flood Building and the Bank of America Building be retained as historic and architecturally significant buildings. The design also recommends a new development of a building adjacent to the west side of the plaza with arcades at the ground floor level. Powell Street is designed as closed to all but emergency vehicles, and reconstructed as a pedestrian mall.

Approvals:

Approval of the Schematic Design for Powell Plaza will establish the general design character of the Plaza development as detailed above. Specifically, approval establishes the basic concepts of the general circulation flow, the interface condition with the BART Subway Mezzanine, the lower level design with the concourse connecting under Fifth Street with shops and commercial activity; the general configuration of the steps, the location of the escalators, the relocation of the cable car terminal, landscaping, planting, surface materials, and sculpture. Established as part of the design approval is the closure of Powell and Eddy Streets, and their conversion to pedestrian use.

III. Civic Center Station Plaza Schematic Design Plan.

Drawings:

1). Alternate Plan, Civic Center Plaza, Scale 1" = 16'

2). Alternate Plan, Civic Center Station Mezzanine, Scale 1" = 30'

3). Alternate Plan, Civic Center Station Plaza, Section A, Scale 1" = 8'

4). Civic Center Station Preperty Acquisition, Scale 1" = 50'

These drawings define the overall character of the functional and spatial design for the development of the Civic Center Station Plaza.

Principles:

The Civic Center is a major nodal space on Market Street, physically marking the intersection of the Market Street axis with the Fulton Mall axis and symbolically acting as the vehicular "gateway" to the downtown core. It also functions to turn the flow of the ceremonial way from Market Street up the Fulton Mall to terminate in the Civic Center Plaza. A lower level plaza provides a transition space to the subway mezzanine level on the southern side.

Functionally, the major role of the plaza is, on the lower level, to smoothly and efficiently integrate the flow of people and space from the subway mezzanine level, to the transition space of the lower plaza and then to the surface of the street. Future direct connection to the proposed Greyhound Bus Terminal is provided for. On the street surface, the major functional role of the northern plaza is to facilitate the turning of the ceremonial functions, such as parades, up Fulton Mall.

A major piece of civic sculpture of monumental scale dominates the majro plaza space, and generates the character of the plaza. Its strategic situation creates the sense of the plaza, drawing the pedestrain flow and giving interest and variety and scale to the civic space. The lower plaza, with a building constructed over it, provides for direct access to the proposed Greyhound Bus Terminal.

In detail, the plaza, in order to merge both Market Street and the Fulton Mall, has the same sidewalk materials, types of trees, street furniture, and street equipment as the street. The lower plaza level is to be provided with sculpture. Fulton Mall is lined with a raised platform with steps for parade viewing, as well as daytime use. On the north platform an outdoor terrace cafe is proposed, overlooking the plaza space.

In development of the surrounding the plaza, major rebuilding is proposed. South of the street a building, is shown; integrated with an arcaded street level, it will define the space on the south, but will permit penetration to the proposed bus terminal beyond. A new building on the north side is proposed to span over the new Seventh Street extension and physically contain the plaza space. This building could be developed with several terrace levels near the ground level, for shops, cafes, and other activities to add color and vitality to the plaza.

Approval:

Approval of the Civic Center Station Plaza and Alternate Plaza will establish the overall character of the functional and spatial development of the Civic Center Station area. Approval can be given for both plaza designs, the alternate functioning as the first phase of the ultimate design; however, present Federal and City funds only provide for the construction of the alternate plaza. Specifically, approval will establish the required land acquisition, street closures, vehicular provisions, pedestrian provisions, subway entrance configuration, landscaping, planting, surface materials, sculpture, street equipment, and street furniture.

APPENDIX B

OUTLINE SPECIFICATIONS

The outline specifications generally describe the reconstruction of the Street and Plazas in terms of types of materials, processes and methods of construction. The specifications also may be cross referenced directly with the cost estimate, as they are organized in the same manner. The specifications begin with the basic demolition of the existing street and then proceed through the construction of the street, and conclude with the street furniture and works of art.

I. RECONSTRUCTION OF MARKET STREET

A. GENERAL CONDITIONS AND ASSUMPTIONS

In general not included in the outline specification are the following: the relocation of the subsidewalk utilities; the construction of subsidewalk vault space; work to be performed by BARTD, private owners, utility companies, privately owned display cases, and interior finishes and furnishings for plaza commercial areas.

B. DEMOLITION AND FILLING

1. Pavement and Sidewalk Removal
   All existing street and sidewalk paving shall be removed, including concrete base, asphalt concrete, street car rails and ties. Sub-base to be scarified and recompacted.

2. Subsidewalk Basement Vault Roof
   All the existing subsidewalk vault roofs shall be removed; usable steel framing may be reused.

3. Filling
   Street shall be regraded as required to match official City grades.

4. Paving Sidewalks
   Sidewalks shall be unit-pavers, such as brick: when set on grade, shall be set on 4" reinforced concrete base, when on basement vault roofs, shall be set on waterproofed 6" reinforced concrete slab.

5. Paving--Streets
   Street paving shall be 2-1/2" asphaltic concrete on 6" cement treated base, and 8" concrete.

6. Paving--Street loading zones, crosswalks, median strips, and gutters.
   Material shall be similar to sidewalk pavers on concrete base with typical sub-base.

7. Curb
Curb shall be white granite, rough sawn finish 8" x 24" in cross section. Curb sawn to curve at corners. Base and sub-base to City standards.

C. ELECTRICAL - ILLUMINATION

1. General Street Illumination
Existing "golden way" light fixtures shall be removed, painted, rewired and relamped, and relocated. Lamps shall provide pale amber light at twice the present level of illumination and this in turn shall be doubled by special reflectors.

2. Tree Lighting
Trees and areas under trees shall be illuminated by special fixtures designed as part of tree guard at each tree.

3. Special Area Lighting
Special fixtures with multiple lamps shall be provided at plazas, and other unique areas.

4. Temporary-Seasonal Lighting
Power outlets shall be provided at each tree for temporary special lighting, displays or other power requirements and for seasonal lighting decoration.

D. TREES AND PLANTING

1. Street Trees
Excavate hole for each tree 10' x 10' x 10'. Remove all earth, abandoned utility lines and debris, protect existing utility lines that are to remain. Furnish and install U.C. soil mix. Mulch, fertilize, and fine grade. Provide and plant Sycamore trees; equip with metal tree guard with illumination fixture and cast grate at sidewalk. Boxed trees are to be the following size and form when planted. 24' in height, 8' in spread, 5" to 6" in caliper and branched 12' from grade. All provision in sub-sidewalk basements for tree root systems shall be provided by the owner of the basement. Required planting space 10' x 10' x 10' minimum, waterproofed and with open bottom for drainage in basement areas. Each tree shall have a bubbler.

2. Planting Areas
Provide ground cover at depressed plaza planting areas. All planting areas shall be watered by an automatic irrigation system. Each tree shall have a bubbler.

E. STREET FURNITURE

1. Bench
Laminated wood, Port Orferel Cedar. All exposed metal dark anodized aluminum. Finished with clear preservative.

2. Waste Receptacle
Aluminum frame. Dark anodized aluminum sides and top. Removable liner.

3. Drinking Fountain
Dark anodized aluminum pipe support, frame and body. Stainless steel bowl and fittings.

4. Flag Pole
Dark anodized aluminum, 40' with ornamental cap.

5. Newspaper Vending Rack
Dark anodized aluminum pole, steel box and glazed doors. Painted metal body.

6. Bollard
Dark anodized aluminum pole and decorative cap. Complete with matching chain.

7. Signs
Dark anodized aluminum pole and fittings. Enameled aluminum signs.

F. STREET STRUCTURES

1. Newspaper Vending Kiosk
Concrete base, steel frame, dark anodized aluminum skin and roof. Complete with shelves and door, and lighting from street light circuits.

2. Vending Kiosk, Flowers, Food, Etc.
Concrete base, steel frame, dark anodized aluminum skin and top. Complete with door, vending window, electric power and illumination, and water and sewer service.

3. Bus Shelter
Concrete foundation, dark anodized aluminum poles, fittings and frame. Anodized sluminum and plastic facia, illuminated. Wire glass roof and general lighting.

G. SURFACE UTILITIES AND EQUIPMENT

1. Manholes and Service Boxes to grade. Relocate service boxes where required. Alteration to subsurface system not included.

2. Catch Basins
Relocate catch basins to new curbs. Reconstruct and reconnect to sewer system as per City standards. Alteration to subsurface system not included.

3. Fire Hydrants
Relocate existing low pressure and high pressure fire hydrants as per City standards. Alteration to subsurface system not included.

4. Police and Fire Call Boxes
Provide new dark anodized aluminum support poles and relo cate existing. Alteration to subsurface system not included.

5. Traffic Signals
Provide new dark anodized aluminum pole and fittings and relocate. Alteration to subsurface system not included.

6. Trolley Overhead
It is recommended that electric trolley busses be discontinued on Market Street, and that all overhead wires be removed. However, as an interim condition, until the new busses are acquired it has been assumed that the overhead trolley bus electrification system will be reinstalled as required by the relocation of the "Path of Gold" light poles.

II. POWELL AND CIVIC CENTER PLAZA CONSTRUCTION

A. GENERAL CONSTRUCTION

All plaza elements at street grade to be same as for Market Street except as specifically noted otherwise. Provide dark anodized aluminum railings around all depressed plaza areas.

B. PLAZA CONSTRUCTION, LOWER LEVEL

1. Excavation
   Excavate as required, keep waterfree. Demolition of uildings or underpinning of adjacent buildings is not included. Filling and back-filling as required.

2. Construction
   Foundations and base structure, including allowance for uplift, retaining walls and stair structures shall be reinforced concrete. Exposed concrete at underside of bridge at Powell Station Plaza shall have an architectural finish.

C. PLAZA FINISHES, LOWER LEVEL

1. Stair treads shall be Red Granite with non-slip finish.

2. Paving at lower levels of plazas shall be similar pavers, similar to the sidewalk units.

3. Exterior concrete walls at depressed areas of plazas shall be faced with rough sawn Red Granite.

D. PLAZA ENCLOSED AREAS, LOWER LEVEL

Commercial spaces (Powell Station Plaza) shall be enclosed with full glazed window wall; dark anodized aluminum mullions, plate glass included.

E. PLAZA ILLUMINATION

Provide typical Special Area Lighting, see Electrical-Illumination section section for Market Street. Provide additional general illumination with recessed fixtures of depressed area of Powell Station Plaza under Fifth Street Extension.

F. PLAZA ESCALATORS

Provide escalators from street grade to depressed plaza level and BART Station mezzanine.

G. CABLE CAR TURNTABLE

Relocate cable car turntable, Powell Station Plaza, as per P. U. C. standards and requirements.

H. WORKS OF ART, SCULPTURE

Commission major sculpture for Civic Center Station Plaza. Provide base for proposed equestrian statue in Powell Station Plaza. Statue not included.

APPENDIX C

UTILITY RELOCATION SURVEY--SUMMARY

This is a summary of the conclusions of the Utility Relocation Survey, a Preliminary Report on tree-utility interferance on Market Street prepared by Kirker, Chapman & Associates, Consulting Engineers. The scope of the study was to conduct a preliminary study and cost estimate of the interference between existing and proposed utility lines in Market Street, and the proposed new widened sidewalks and street tree planting between Eighth and Steuart Streets. The study area included the strips on both sides of the street between the existing subsidewalk basements and the proposed new general curb line 35' from the property lines. To arrive at a preliminary indication of the problems and the costs involved in a project of this magnitude two specific areas were selected for study: the Civic Center Station area and the street area between that station and the Powell Station. Recommendations for other areas along Market Street were interpolated from the results of the study of these two areas.

It should be noted that due to limited scope of this preliminary survey only a few direct contacts were made with the utilities companies with regard to costs or alternate relocation. Also, sleeving or other similar protection in lieu of complete, utility relocation, was not studied.

For this report it has been generally assumed that complete relocation will be required. When further, more detailed, studies are made it will then be possible to assign responsibilities for the utility relocation and financing.

AREA 1: CIVIC CENTER STATION

The area covered by the Civic Center Station study was based upon the utility information shown on the BARTD Subway Construction contract documents. It was found that, in general the utilities in this area fall into one of the following catagories:

1. Existing utilities located outside the proposed new curb line.
2. Existing utilities located inside the proposed new curb line but scheduled for removal and/or relocation outside the new curb line.
3. Existing utilities located inside the proposed new curb line and scheduled to be removed but not outside the new curb line.
4. Existing utilities subject to support and/or replacement but scheduled to remain in-place inside the new curb line.

In conclusion, it was found that the majority of the utilities in the station areas would either be relocated to the future roadway area, or partially moved, or replaced in place. It was found that the general costs involved in relocating these lines to the roadway would be nominal. It was also found that some utilities, such as the Western Union lines, that are not scheduled for relocation, would entail costs for their relocation. Estimates indicated that the costs involved moving these lines may average around $100,000 per station.

AREA 2: BETWEEN CIVIC CENTER STATION AND POWELL STREET STATION

In this area only those utilities not shown to be relocated on the station drawings were studied. It was found that, in general, the utilities in this area fall into one of the following catagories:

1. Existing utility lines located outside the proposed new curb line.
2. Existing utility lines located inside the new curb line but slated to be relocated outside the new curb line.
3. Existing utility lines located inside the new curb line requiring relocation during reconstruction of Market Street.

In conclusion it was found that the majority of the utilities between the station areas would not be relocated as part of the Subway construction. A considerable number of them occur in the future sidewalk area. Estimates indicated that the costs involved in relocating utilities may average around $6 million for the length of the street between Civic Center and Ferry Park.

CONCLUSIONS

It is recommended, for reasons of protection of future quality sidewalk materials, general ease of instalation in the asphaltic roadway area, installation of street trees, and efficient utility system layout that the utilities be relocated to the roadway zone, 37 feet from the Market Street property lines. Inasmuch as the majority of the utilities in the station areas will be relocated as part of the station construction, and the cost is small. It is recommended all the utilities in the station areas be relocated to the roadway area. Although the costs are higher between the station areas, for the above reasons, it is recommended that those utilities he also relocated to the roadway area.

It is also recommended, that in order to lessen both the underground utility congestion and the complications and expenses in planting the trees, that all existing utilities and lines to be abandoned be removed.